

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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No. 2432.—VOL. LII.

LONDON, SATURDAY, APRIL 1, 1882.

WITH SUPPLEMENT. PRICE SIXPENCE PER ANNUM, BY POST £1 4s

MR. JAMES H. CROFTS, STOCK AND SHARE BROKER,
AND MINING SHARE DEALER,
NO. 1, FINCH LANE, CORNHILL, LONDON, E.C.
ESTABLISHED 1842.

BUSINESS transacted in all descriptions of MINING Stocks and Shares (British and Foreign), Consols, Banks, Bonds (Foreign and Colonial), Railways, Insurance, Assurance, Telegraph, Tramway, Shipping, Canal, Gas, Water, and Dock Shares, and all Miscellaneous Shares.

Business negotiated in Stocks and Shares not having a general market value.

Every Friday a general and reliable List issued (a copy of which will be forwarded on application), containing closing prices of the week.

MINES INSPECTED.
BANKERS: CITY BANK, LONDON—SOUTH CORNWALL BANK, ST. AUSTELL.

SPECIAL DEALINGS in the following, or part:—
Arendal, 30s. 100 Gt. No. Mysore, 4s. 50 Panulicillo, £2 8s. 6d.
50 Almada, 10s. 6d. 15 Gwydir Amal., off. w. 50 Pestarena, 9s. 9d.
50 Bedford United, 37s. 35 Hindon Down, 18s. 9 25 Ruby, £3 2s. 6d.
50 Bratsberg, 28s. 9d. 50 Herodfoot, 4s. 25 Richmond, £10 7s. 6d.
50 Bwch United, 17s. 6d. 150 Javal, 6s. 30 Roman Gravels, £3 7s 6
10 Cardiff & Swan, 22s. 20 Killifretch, 23 17s. 6d. 100 Sentein, 7s. 6d.
50 Carnarvon Co., 15s. 50 La Plata, £2 2s. 6d. 25 Indian Gold, 17s.
100 Calico Bis., 17s. 6d. 80 Last Chance, 10s. 6d. 100 Condurrow, £9 7s 6
60 D'Esrey Mount, 19s. 20 Leadhills, £2 7s. 6d. 50 Darren, 12s. 6d.
50 Derwent, offer wtd. 30 Marke Valley, 13s. 9 25 E. Wynnaid, £1 1s.
50 Devon Con., 27 1/2. 50 Morfa Du, 9s. 50 Santa Barbara, 19s.
50 Devon Friend., 7s. 6d. 50 Mysore Gold, 15s. 50 So. Devon Uni., 20s. 8
50 Drakewalls, 12s. 6d. 50 Mysore Reef, 5s. 6d. 50 Sortridge, 6s.
50 East Blue Hills, 11s. 6 250 No. Herodfoot, 5s. 3 50 Tanker. Gt. Con., 6s 3
50 East Caradon, 6s. 3d. 75 Nouv. Monde, 6s. 3d. 50 Unl. Van. Con., 13s. 9d.
70 E. Chiverton, £1 10s. 25 No. Penfirth, 9s. 140 West Devon.
50 English Australian Gold, 10s. 50 West Caradon, 5s. 6d. 45 West Phoenix, 22s.
50 Frontino, 22 18s. 9d. 100 Old Owlacombe, 2s. 6d. 50 West Polbreen, 22s 6d.
50 Glenrock, 17s. 50 Poldore, 5s. 50 Wheal Crebor, 5s.
50 Glynroay, 6s. 3d. 50 Port Phillip, 4s. 25 West Kitti.
50 Gold Coast. 50 Potosi, 18s. 3d. 70 Wheal Jewell, 8s. 9d.
50 Grogwinion, 10s. 100 Parys Copper, 10s. 9d. 25 Wheal Kitty, £1 1/2.
50 Prince of Wales, 10s. 50 Prince of Wales, 10s. 50 Wheal Reefs, 5s.
50 Shares sold for FORWARD DELIVERY (ONE, TWO, OR THREE MONTHS) ON DEPOSIT OF TWENTY PER CENT.
50 WEST DEVON CONSOLS.—SPECIAL BUSINESS in these shares.
50 SPECIAL BUSINESS at CLOSE PRICES in all Market TIN, COPPER and LEAD SHARES.

JAMES H. CROFTS, 1, FINCH LANE, LONDON.
ESTABLISHED 1842.

RAILWAYS — FOREIGN BONDS — SPECIAL BUSINESS.
Fortnightly Accounts opened on receipt of the usual cover.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

AMERICAN AND CANADIAN STOCKS AND SHARES—
SPECIAL BUSINESS.
Fortnightly Accounts opened on receipt of the usual cover.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

INDIAN GOLD MINES.—SPECIAL BUSINESS in:—
Coatcovil. Indian Trevelyan. Rhodes Reef.
Devil's Moyer. Mysore. South-East Wynnaid.
Devil's Central. Mysore Reefs. South Indian Glenrock
Indian Phoenix. Oregum. Tambachery.
Indian Kingston. Organos. Wynnand Perseverance.
At CLOSE MARKET PRICES, free of commission.
Reliable information given on any of the above. A daily price list issued
giving closing quotations. SPECIAL BUSINESS in La Plata, Rio Tinto,
Ronino and Bolivia, Potosi, Ruby, Nouvea Monde, and Richmond.
SHARES IN THE ABOVE INDIAN OR OTHER GOLD AND SILVER
MINES SOLD FOR FORWARD DELIVERY ONE, TWO, OR THREE
MONTHS ON DEPOSIT OF TWENTY PER CENT.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

MR. W. H. BUMPUS, STOCK AND SHARE BROKER,
AND MINING SHARE DEALER
44, THREADNEEDLE STREET, LONDON, E.C.
ESTABLISHED 1867.

BUSINESS transacted in STOCK EXCHANGE SECURITIES
and MISCELLANEOUS SHARES of every description.
RAILWAYS, BANKS, FOREIGN and COLONIAL BONDS,
TRAMWAYS, TELEGRAPH, and all the LEADING INVESTMENTS.
Accounts opened for the Fortnightly Settlement

A List of Investments free on application.
Mr. BUMPUS has SPECIAL BUSINESS in the undermentioned:—
100 Almada, 10s. 9d. 100 Everhardt, 10s. 50 New Trumpet.
50 Arendal, 22s. 100 East Van, 6s. 6d. 100 Potosi, 18s. 6d.
70 Bratsberg, 27s. 6d. 50 Frontino, 2s. 6d. 150 Port Phillip, 4s.
50 Bwch United, 37s. 6 100 Gold Coast, 23s. 6d. 75 Pen-yr-Oresedd, 15s.
25 Bedford United, 37s. 6 150 Genroy, 7s. 6d. 30 Panulicillo, £2 2s. 6d.
150 Calico Bis., 16s. 50 Great Holway. 50 Parys Copper, 12s.
50 Chontales, 2s. 6d. 50 Great Laxey, £1 1/2. 20 Phoenix United, 23.
100 Corn Brew, 18s. 25 Hindon Down, 23s. 6 40 Prince of Wales.
100 Carnarvon, 15s. 100 Indian Phoenix, 14s. 6 100 Rhode Reefs, 15s. 6d.
70 Glepiano, 23 6s. 3d. 100 Indian Trevelyan, 10s. 50 Ruby, £3 1/2.
20 Cape Copper, 24s. 100 Indian Glenrock, 15s. 6d. 100 Richmond, £10 1/2.
30 Colorado, 32s. 6d. 100 Leadhills, 47s. 6d. 100 South India, 17s. 6d.
15 Devon Consols, 27 1/2. 15 Killifretch, £2 2s. 6d. 150 South Devon, 21s.
50 Devil's Moyer, 19s. 40 La Plata, 42s. 6d. 100 W. M. G. 100 W. M. G.
50 Dev. Friendship, 7s. 6 100 La Plata, 42s. 6d. 100 Van. 27.
50 Dev. Friend., 7s. 6 100 Mysore Gold, 14s. 50 W. Godolphin, £2.
50 Dev. Potosi, 6s. 100 Marke Valley, 12s. 15 Wheal Crebor.
50 East Lovell. 10 Mon. 10 Wh. Grenville, £11 1/2.
40 East Blue Hills, 12s. 150 Nouvea Monde, 4s. 9d. 50 Wheal Jewell, 8s.
50 New Quebrada, £4 2 6 SPECIAL BUSINESS, at close prices, in the SHARES of all the principal
HOME and FOREIGN MINES.
Mr. BUMPUS devotes special attention to these Securities, and is in a position
afford reliable information and advice to intending investors and others.

IMPORTANT TO INVESTORS.—Shares in SOUND DIVIDEND and PRO-
GRESSIVE MINES (particularly TIN and COPPER) should be bought at pre-
sent prices, as many of them are likely to have a considerable rise before long.
There is every probability that much higher quotations will rule within the
next few months.

The following are particularly recommended:—
WEST GRENVILLE. WEST GODOLPHIN.
WEST KITTY. WHEAL BOYS.
WEST PEEVOR. DEVON FRIENDSHIP.
GREAT HOLWAY. NEW TRUMPET CONSOLS.

WILLIAM HENRY BUMPUS, STOCK BROKER,
OFFICES: 44, THREADNEEDLE STREET, LONDON, E.C.
ESTABLISHED 1867.

MR. GEORGE BUDGE, STOCK AND SHARE DEALER
9, GRACECHURCH STREET, LONDON, E.C. (Established 25 Years)
ALL BUSINESS TRANSACTED FREE OF ANY CHARGE FOR
COMMISSION.

100 Almada. 100 Blagstaff. 20 New Cook's Kitchen.
50 Birdseye Creek. 10 Froncouch. 50 Oregum.
50 Bedford. 100 Gold Coast. 50 Potosi.
100 Bratsberg. 60 Guinea Coast. 103 Parys Copper.
100 British Australian. 50 Gawton. 100 Rhodes Reef.
50 Canada Gold. 15 Goginan. 130 Silver Peak.
100 Calico Bis. 200 Gold Hill. 50 South Devon.
100 Dingley Dell. 50 Hindon Down. 50 South Tolcarne.
100 Devil's Moyer. 100 Hoover Hill. 45 Tolima.
100 Devon Friendship. 100 Isabelle. 100 Tocopilla.
100 Drakewalls. 100 I. X. L. 50 West Polbreen.
100 East Blue Hill. 90 Kapanga. 10 West Kitti.
100 East Caradon. 75 Langford. 10 Wheal Kitty.
75 East Chiverton. 35 La Plata. 30 Wheal Coates.
75 East Roman Gravels. 50 Marke Valley. 40 Wheal Jane.
50 Bachequer. 70 New West Caradon. 100 Wheal Lusky.
50 Oberhardt. 20 New Kitti. 20 Ystwith.

BRITISH AND FOREIGN MINING OFFICES.
MESSRS. PETER WATSON AND CO.,
AUSTIN FRIARS
OLD BROAD STREET, LONDON, E.C.
BANKERS: THE ALLIANCE BANK (Limited).

MESSRS. PETER WATSON AND CO.'S
BRITISH AND FOREIGN MONTHLY MINING NEWS
—STOCK AND SHARE INVESTMENT NOTES—MINES,
MINERALS, AND METAL MARKETS—SHARE LIST.
No. 840, VOL. XVII., for APRIL month, is now ready, and
will be sent to customers on application.

Annual Subscription..... 5s. | Single Copy..... 6d.

MESSRS. PETER WATSON AND CO.,
18, AUSTIN FRIARS, E.C.

MRS. ALFRED E. COOKE,
DEALER in BRITISH and FOREIGN STOCKS and SHARES
of EVERY DESCRIPTION.
(From 76, OLD BROAD STREET)
ESTABLISHED 1853.
9, OLD BROAD STREET, LONDON.

STOCKS AND SHARES FOR SALE.

Mr. ALFRED E. COOKE can SELL the following lots (or any smaller number of
shares) to immediate applicants at prices annexed, free of commission.

Where prices are not inserted, the market price of the day will be taken, or
offers may be made:—

20 Bedford Uni., 36s. 6 40 Indian Glenrock Gold 45 Prince of Wales Cop.
100 Devon Uni., 28s. 6 17s. 50 Gravels Lead, £29 1/2
100 Old Owlacombe, 2s. 6d. 25 Indian Trevelyan 20 Richmond Sil., £10 1/2
50 Bratsberg Cop., 28s. 6 17s. 50 Potosi, 18s. 6d.
20 Carnarvon Copper, 14s. 6 25 Wheal Crebor, 5s.
55 Calico-Bi Gold, 17s. 6 10 Killifretch Tin. 50 So. Devon Cop., 19s.
40 D'Esrey Mount. Lead 18s. 6d. 50 La Plata Lead, £2 1/2 50 South-East Wynnaid
50 Deva Gold, 18s. 30 Langford Silver, 7s. 50 Wheal Agar, 22 1/2
50 Devon Friend., 5s. 9d. 60 Mona Con. Cop., 22s. 50 Sortridge Copper and
100 Devon Con., 7s. 6d. 100 Morfa Du, 8s. 6d. 50 Wheal Crebor, 5s.
100 Devon Uni., 28s. 6d. 100 Mysore Gold, 14s. 3d. 50 Wheal Agar, 22 1/2
100 East Lovell Tin, £1 1/2. 100 Mysore Reef Gold, 5s. 3 25 Van and Glyn Lead,
100 West Devon. 100 New Kitti Tin, £2 1/2. 15s. 6d.
100 West Devon. 100 New West Caradon 50 W. Crebor Cop., 4s. 6d.
50 East Blue Hills Tin, 11s. 9d. 100 No. Herodfoot, 5s. 100 West Phoenix Tin and
100 Nouvea Monde, 5s. 100 Nouvea Monde 100 Wheal Crebor, 5s.
30 Eng-Australian Gold 5s. 34. 100 D'Esrey Lead, 10s. 6d.
50 Frontino Gold, £2. 25 Wheal Agar, 22 1/2 50 Wheal Agar, 22 1/2
50 Glynroay Copper, 10s. 50 Polrose Tin. 20 Wh. Crebor Cop., 22 1/2
100 Gunnislake (Clitters) 60 Potosi Gold, 16s. 3d. 45 West Lisburne Lead
50 Wheal Crebor, 5s. 3d. 100 Parys Copper, 10s. 3d. 20s.
50 Herodfoot Lead. 100 Pioneer Copper and 25 West Devon Copper.
100 Hoover Hill, 8s. 100 Leadhills, 47s. 6d.

Many of the above shares can be held for settlement by arrangement at the
middle or end of May on payment of 20 per cent. deposit. Shares not found
in the above list may be purchased on application.

N.B.—This is a most favourable time to purchase shares in ESTA-
BLED TIN and COPPER MINES at cheap prices.

Mr. ALFRED E. COOKE is buyer of shares in all the LEADING MINES at current
market price.

The INVESTORS' GAZETTE, edited and published by Mr. ALFRED E. COOKE, will be forwarded to bona fide investors FREE ON APPLICATION.

Mr. ALFRED E. COOKE has SPECIAL BUSINESS in the following Shares, and
strongly recommends an IMMEDIATE PURCHASE:—

BEDFORD UNITED. EAST BLUE HILLS. WEST CREBOR.
BRATSBERG. GUNNISLAKE (Clitters). WEST DEVON CON.
DEVON FRIENDSHIP. SORTRIDGE.

FOREIGN STOCKS. SPECIAL REPORT on the markets, and DAILY
or WEEKLY PRICE LIST forwarded on application.

Business executed at close net prices either
for INVESTMENT or SPECULATION.

TELEGRAMS and LETTERS receive immediate attention. All shares cur-
rently dealt in, bought and sold, free of commission.

ALFRED E. COOKE, 9, OLD BROAD STREET, LONDON.
(Opposite the Stock Exchange, with which the offices are in DIRECT
TELEGRAPHIC COMMUNICATION.)

JOHN B. REYNOLDS, STOCK AND SHARE DEALER,
37, WALBROOK, LONDON, E.C.
ESTABLISHED 25 YEARS.
BANKERS: LONDON JOINT-STOCK, Princes-street.

Mr. REYNOLDS continues very strongly to recommend the purchase of WEST
KITTY shares.

Buyers and Sellers of these shares may with advantage apply to Mr. REYNOLDS,
who deals in them at close prices.

H. LAMBERT, SOUTH DOLCOATH SHARES, £1.
STOCK AND SHARE BROKER,
42, OLD BROAD STREET, LONDON, E.C.

See MINING JOURNAL Report of General Meeting,
page 334, March 18, also previous notices, pp. 147
and 267, or write to Advertiser for copies of same.

FERNAND R. KIRK, STOCK BROKER,
5, BIRCHIN-LANE, LONDON, E.C.

Fortnightly Accounts opened in all Stock Exchange Securities on receipt of
the usual cover.

BANKERS: LONDON AND WESTMINSTER, Lothbury.

MESSRS. ENDEAN AND CO., STOCK AND SHARE
DEALERS, 95, GRACECHURCH STREET, LONDON, E.C.

ESTABLISHED 1861.
BANKERS: London and Westminster, Lothbury, E.C.

M. S. S. J. TAYLOR AND CO.,
MINING ENGINEERS AND INSPECTORS,
55, LONDON WALL, LONDON, E.C.,
Have Agents in the various Mining Districts of Great Britain, the Continent,
Australia, and the United States of America.

Inspections undertaken, either personally or by our Agents, and Reports of
Advises to Working given.

MESSRS. H. MANSELL AND CO., STOCK AND SHARE
DEALERS, 19, BISHOPSGATE STREET WITHIN, LONDON, E.C.

TWENTY-EIGHT YEARS' EXPERIENCE.

FURTHER GREAT DISCOVERY OF LEAD IN CARNARVONSHIRE
GREAT CONSOLS.

News received this day from the agent, stating "a branch of the lead just cut
in the 8 fm. level, below adit, of solid lead, worth 3 tons of lead per fathom."

Shares must advance from present price, £1 2s. 6d., at which we can offer 200
shares if promptly applied for. These shares are £2 per share, fully paid up.

M. R. ALEXANDER DAVIDSON,
STOCK AND SHARE DEALER,
LEADENHALL HOUSE, 101, LEADENHALL STREET, LONDON, E.C.

OFFERS CAN BE MADE for the following, which are FOR SALE under
quoted market prices (OR LOWEST PRICES WILL BE FORWARDED).

100 Bratsberg. 90 Hindon Down. 40 Richmond.

100 Bedford United. 200 La Plata. £2 2s. 30 Roman Gravels.

50 Carnarvon. 25 Mona. 2

SPECIAL NOTICE.—The List of Applications for Shares will be closed at an early date, the successful carrying on of the Company being already assured by Subscriptions in advance of this Prospectus.

Captain JOSIAH THOMAS, of Dolcoath, who inspected the Mulberry Tin Works on the 27th of January last, reports as follows:—"The workings have been carried on by an open cutting from surface. There is an almost inexhaustible supply of stuff. The cost of breaking, trammimg, stamping, and dressing is about 2s. 6d. per ton, leaving a profit, with tin at the present price (£66 per ton), of about 2s. per ton of stuff, or £30 per ton of tin. The natural advantages of this mine are very great. Being situated in the side of a hill no pumping machinery is required, and no mining, in the ordinary sense of that term, such as sinking shafts, driving levels, &c. The profits will simply depend on the amount of stuff treated."

Captain HAMBLEY reports:—"You are taking to the works as a going concern, fully opened and proved, and of a character free from speculation. I have been manager of these works for the last 23 years, and am, therefore, in a position to speak about them."

The Mulberry Tin Works, Limited.

Incorporated under the Companies Acts, 1862 to 1880, whereby the liability of Shareholders is limited to the amount of their Shares.

CAPITAL £100,000, IN 100,000 SHARES OF £1 EACH.

PAYABLE—1s. per share on application; 4s. per share on allotment; 5s. per share three months after allotment;

and 10s. per share six months after allotment.

Shares may, if so desired by the Applicant, be paid up in full on allotment, and will be entitled to Dividends pro rata. In view of the Continuous Profits now being made, it is intended to declare Quarterly Dividends, the first of which will be paid in September next.

DIRECTORS.

Mr. Alderman BANTOCK, Coalmaster, Wolverhampton—**CHAIRMAN.**
GEORGE LUND, Esq., 1, Queen Victoria Street, E.C.
CHARLES MILES, Esq., 64, King William Street, E.C.
W. J. NORTH, Esq., Newquay, Cornwall.
EDWARD SMITH, Esq., Manor Park, Lee, S.E.
E. PAGET THURSTAN, Esq., M.D., B.A., 14, Colosseum Terrace, N.W.

AUDITORS—JAMES COOPER, Esq., 3, Moorgate Street Chambers, E.C.

Messrs. T. FULLER, CARTER, AND SON, Gresham Chambers, Basinghall Street, E.C.

SOLICITOR—W. J. SMITH, Esq., Abchurch Chambers, E.C.

BANKERS—Cornwall : Messrs BAIN, FIELD, HITCHINS, AND CO., Redruth.
London : THE CONSOLS BANK (Limited), 42, Parliament Street, S.W.

SECRETARY—Mr. JAS. RODGER YOUNG.

REGISTERED OFFICES,—11, CLEMENT'S LANE, LOMBARD STREET, E.C.

PROSPECTUS.

This company is formed for the purpose of acquiring and developing the property known as The Mulberry Tin Works, situated in the parishes of Withiel and Lanivet, near Bodmin, in the county of Cornwall.

These works are virtually a trading concern, free from the uncertainties of mining operations. The tinstuff has not to be sought for (as in ordinary mines), but is exposed to view in a vast quarry, whence it may be taken away in the mass for a very long time to come, as the accompanying reports will show.

Large profits are now being made with the existing inadequate appliances, but it is intended by means of the capital now offered for public subscription to lay down tin dressing plant on a scale commensurate with the extent of tin ground laid open for taking away, and thereby proportionately augment the profits.

It is proposed to erect plant which will be capable of returning 100 tons of black tin monthly, and this at a profit of only £25 per ton (the present rate of profit being over £30 per ton) will give £20,000 yearly, or equal to 30 per cent. per annum on the entire capital of £100,000.

It must also be borne in mind that by working on a more extended scale than at present the cost of treatment per ton of tinstuff will be considerably diminished, hence large profits will be made even if the market price of tin should fall to the lowest point on record.

The shares of the company may, therefore, be fairly regarded as a non-speculative investment, and as certain to stand at a high premium in the market, seeing that they will be dividend-paying from the outset, and that the rate of dividend may be expected to continuously increase.

The works being taken over as a going concern making continuous profits, the success of the company is not dependent upon the public subscribing any particular proportion of the shares now offered. The list of application for shares at par will therefore be promptly closed at an early date, after which shares will be obtainable only by purchase in the open market.

The directors particularly call the attention of intending subscribers to the annexed reports, on which the above statements are based, and also invite them to visit the works and ascertain for themselves the *bond fide* nature of the undertaking—a course which has been duly pursued by a special committee of the board.

The property is leasehold, held on lease for 21 years from 1881, at a royalty varying with the price of tin, 1s. 6d. being a maximum. It has belonged of late years to Thomas Martyn and others, and was sold in 1881 to Captain David Cock (on behalf of himself and others), who is the vendor to the company. The vendor is the promoter of the company, and has fixed the purchase-money (including the profit of himself and partners) at £40,000, payable, as to £20,000, in shares, and as to the remaining £20,000, in cash, by such instalments as the directors may decide. The board have fully investigated these dealings with the property, and are satisfied that the proposed terms are fair and reasonable in the interests of the general body of shareholders.

The contract of purchase is dated the 17th day of March, 1882, and is made between David Cock, of the one part, and the company, of the other part. This must be assumed by applicants for shares as the only contract needing to be set forth in this prospectus under the Companies Acts, it being the only contract affecting the company other than the usual arrangements for labour, materials, &c., in connection with the carrying on of the works.

It is intended to apply in due course to the committee of the Stock Exchange for an official quotation of the shares of the company.

Applications for shares must be made on the form accompanying the prospectus, and must be sent, together with the deposit, to the secretary, or to either of the bankers of the company.

REPORT OF CAPTAIN JOSIAH THOMAS.

MULBERRY TIN WORKS.

Dolcoath Mine, Camborne, Jan. 28, 1882.

GENTLEMEN,—I visited these works yesterday, and, having made a thorough inspection of the same, beg to report thereon as follows:—A large tin deposit has been worked on more or less extensively for some time past. It is composed of soft killas (clay-slate), interposed with small branches of tin, having a general direction of about north-east. The workings have been carried on by an open cutting from surface, and are about 100 fms. long, 10 to 12 fms. wide, and about 20 fms. deep. The stuff after being broken is trammed direct into the stamps, and being very soft can be very easily and cheaply stamped and dressed. There are three sets of stamps on the mine, worked by water-power—two water-wheels driving 36 stamps head each, and the other water-wheel 32 heads, making a total of 104 heads, capable of stamping, when in full work, upwards of 100 tons of stuff per day. During the winter months there is an abundant supply of water, but in summer the water falls off, and only a portion of the stamp-heads can be worked. I find from the books that during the past year 15,769 tons of stuff have been stamped (or about 50 tons per day), and that the sales of tin have been 52 tons 9 dwts. 0 gr. 12 lbs., so that the average produce has been about 7½ lbs. of black tin (tin ore) per ton of stuff, worth, at the present price of tin, about 4s. 6d. per ton of stuff. The cost of breaking, trammimg, stamping, and dressing is about 2s. 6d. per ton, leaving a profit with tin at the present price (£66 per ton) of about 2s. per ton of stuff, or £30 per ton of tin. A deep level has of late been brought up to the tin deposit, 14 fms. deeper than the former level to the depth of which the deposit had previously been worked, and the stuff at the deepest point is of about the same and possibly a little better value* than in the upper workings; so that there is every reason to believe that with a fair price for tin there is an almost inexhaustible supply of stuff to be obtained for a very long time to come.

I was informed by the agent that during the past month 7 tons 15 cwt.s. of black tin had been produced—about 6 tons from Mulberry and 1 ton 15 cwt.s. from Wheal Prosper, and that the actual profit made on this after every cost had been paid was £220, equal to a profit of about £30 per ton of tin, which agrees just exactly with the above estimate.

The natural advantages of this mine are very great. Being situated in the side of a hill no pumping machinery is required, and no mining in the ordinary sense of that term, such as sinking shafts, driving levels, &c. I cannot see that much, if any, improvement can be made in the mode of working, and with a fair price for tin the profits will simply depend on the amount of stuff treated. In order to increase the returns of tin more stamping and dressing machinery must be erected, as the present machinery is fully supplied with stuff. There

* See, however, the report of Capt. Hambley, who says, "This ground is giving at least one third more tin than any previously worked."

THE MINING JOURNAL.

Meetings of Public Companies.

THE AKANKOO (GOLD COAST) MINING COMPANY.

The second ordinary general meeting of shareholders was held at the Cannon-street Hotel, on Monday, Mr. GEORGE CAVENDISH TAYLOR (the Chairman) presiding.

The SECRETARY read the notice calling the meeting; the report and accounts were taken as read.

The CHAIRMAN said.—Gentlemen, I shall now proceed to make a few remarks upon the report. I do not propose to detain you any longer than I can help, for I have no doubt many of you will have questions to ask, to which I shall be prepared to give the fullest reply and the fullest information in my power. I beg of you to look upon me not only as Chairman of this meeting, but also as one of the largest shareholders in the company, and that my interests are exactly identical with yours both for good and for bad.

If you will now refer to the report I think the first paragraph which calls for any remark on my part is the fifth, where reference is made to the death of Mr. Bonnat.

Mr. Bonnat died at the time he did. He was residing in Paris, and went out to the coast on business of his own. The deed for his signature was sent out to him to execute, but unfortunately it only reached there two days after he died; consequently, we were thrown back in the way explained in the report. We say, in the sixth paragraph, that a period of four months was unavoidably lost owing to this unfortunate occurrence. I think that is putting it in a very mild form indeed, for although four months might be the actual time, still it has cost us, I may say, a year, for we lost a season, and in tropical countries if you lose a season it means that you lose a year, and I may say that a great deal of our subsequent trouble has arisen from that very circumstance. It would take me a long time to explain to you that the delay in getting the title completed was increased by French law, and it is hardly necessary for me to do so.

The next paragraph to which I will call your attention is paragraph eight. Mr. Ammenden, who sailed on Feb. 25, has no doubt arrived on the coast by this time, as we heard of his arrival in Madeira. He has orders to employ native labour to clear up the mine. He has taken money to engage the men, and to pay the rent of the mine, and I suppose we shall hear from him in the course of three or four weeks.

With respect to the ninth paragraph, which refers to the steam launch and lighter, I am happy to say that I have received an answer from Messrs. Forrest (to whom I wrote a few days ago), stating that the lighter would be completed in ten days. The houses also for the use of the manager and white workmen are now almost completed. With regard to Mr. Lane's going out it is proposed that he should go out early in May, and he will take with him the lighter and launch, and also these houses, and as soon as he gets there he will have these houses put up, and make all the arrangements for opening up the mine.

In the next paragraph you will see that reference is made to the election of new directors. It was a foregone conclusion, I may say, for some time past that when a vacancy occurred Lieut.-Col. Arbuthnot should be elected to fill it. He is the largest shareholder in the company, and has had considerable experience; and I trust, therefore, that it meets with your approbation. (Hear, hear.) I do not propose to say more about Messrs. Jordan and the new machinery, for we had a special meeting devoted to that, and we thrashed it out so thoroughly that I do not propose to say anything further on the subject unless I am asked.

With regard to the sixteenth paragraph, you must remember that it takes a very long time to start a new enterprise, and a mine is no exception to the rule—in fact, from what I hear of mining it takes as much to start a new mine as any other business whatever. (Hear, hear.) I dare say we have been much dis-

appointed at not having made more progress; but let me remind you that some of the Indian mining companies have been in existence for about three years, and are not yet developed, and have not produced a single ounce of gold. I can only say that I am a shareholder in three of them. In fact, many of their difficulties out in India have been owing to want of proper machinery. There is one mine, in which I am a shareholder, started with most glowing prospects two years ago, and the other day I was talking to one of the di-

rectors, who is a friend of mine, and I asked him about it, and he said—

"The fact is we broke down first with the machinery. It came out in this way. We had machinery, and we stated in the prospectus that we had quartz on the bank ready for crushing, and machinery ready to crush it; but when we came to the operation it was the old story of the dog that could not wag its tail but the tail wagged the dog—that is to say, the machinery was not powerful enough to crush the quartz, but the quartz shook the machinery all to pieces."

Consequently they were subjected to delay, and the expense of obtaining new machinery, and they have not yet got it to work. I trust now we shall make a fair start, and obtain results within a reasonable time. I will not be so absurd

as to prophecy when these results will be obtained, but I hope and believe it will be as soon as it can possibly be accomplished. I will call your attention to the auditors' report, in which it states that the vouchers are to be sent home from the coast within a short time—I mean the vouchers with respect to the £23, 14s. The books containing those vouchers and documents arrived only last Thursday, and you will readily understand that as yet we have not had time to consider them, as we only got them on Thursday afternoon. What will probably interest you more than anything I have said are the accounts, and here again I shall be prepared to give the fullest information in my power. The first item to which I will refer is the cost of the expedition to the Gold Coast. It does seem a very large sum, and I think it is so myself, but I always knew that it would be, and I said so. But you must not suppose that the directors did not do everything in their power to keep it as low as possible. I did so, and also my colleagues. We passed a minute to that effect, and in a letter we gave every instruction to those forming the expedition that there should be no expenses whatever which were not absolutely necessary. Here is the letter ad-

dressed to the board. In reply:—"We beg to say, for the information of the board, that in ordering the necessary instruments, machinery, stores, and goods for the purpose of this expedition, we have been careful to purchase only what was necessary for the purpose, and with a due regard to economy; at the same time it must be borne in mind that many of the materials purchased will be serviceable in the future opening out of the mine." That letter is signed by Commander Cameron, Mr. Wyatt, and Mr. Cornish. With respect to what is out there, I cannot tell you what is now on the spot, but we shall know when

Mr. Ammenden writes a letter home. He will inform us, as part of his instructions were to see what there is there and let us know, and Mr. Lane also has instructions when he goes out to investigate the matter, and let us know. But we know that there are three houses, and a lot of gunpowder and gun, and two surf-boats. Well, gentlemen, I do not propose to detain you any longer now, but I shall be happy to give you the fullest information I can in reply to your questions. With these remarks I move that the report and accounts be received and adopted.

Mr. ROPER asked whether the houses were being taken care of. —The CHAIRMAN said they were. —In reply to a further question by Mr. ROPER, the CHAIRMAN said the machinery and goods would be taken by surf-boats over the bar of the river Asin, and transhipped into the lighters and towed up the river.

Mr. ROPER thought the cost of the expedition to the Gold Coast was large, and a little further explanation should be afforded regarding it.

The CHAIRMAN said the expedition consisted of Commander Cameron, Mr. Wyatt, Mr. Cornish, and three English miners, and the company had to insure their lives, and the passage money, as many of the shareholders were aware, was very high to that part of the coast. The item also included the expense of taking several Kroomeen labourers from Sierra Leone down to the mine.

The CHAIRMAN, in reply to a further question, read the items contained under the head of "Miscellaneous Expenses."

Mr. ROPER drew attention to the current expenses, which he considered large, particularly the directors' and trustees' fees and salaries.

The CHAIRMAN said the item included preliminary expenses, the payment of which, in many companies, was spread over a number of years, but here they had been paid off.

Mr. ROPER suggested whether it would not be cheaper to put the company in some accountants' office? —The CHAIRMAN said it could not be done. The board did not think it over, but several of the shareholders considered in an undesirable course. There were about 600 shareholders, many of whom were continually going to the office, and he believed it would be quite as expensive to have the company in an accountants' office as in its own offices.

Mr. ROPER said he certainly considered the expenses bore too high a proportion to the capital. —The CHAIRMAN said they had paid for the mine, and 10s. per share had been called up, and a considerable part of it expended, and there was 10s. more to call up.

Mr. ROPER said he did not blame the directors for the delays which had taken place, but he must urge upon them to exercise every economy. (Hear, hear.)

Mr. ADLER considered that directors fees should not be paid until something was paid to the shareholders.

The CHAIRMAN: I do not know whether you expect to get directors to serve you for nothing. As a shareholder in a company in which I was not a director I should object to unpaid directors, for they will not attend to your business. (Hear, hear.) Of course, the directors remuneration was fixed by the Articles of Association, which any shareholder might have seen before he subscribed for the shares; but I may say that this meeting cannot alter the remuneration, but I think we should have it altered; at the same time we are prepared to accept a lower rate of remuneration. I take no blame myself for the past. I was asked to become a director of this company, and also to become Chairman, and I accepted, but I have not the least wish to be a director or the Chairman. The work has been arduous; I have been at the office at least five days out of every six, and since I have been Chairman I have been several times a day, and I shall have to go several times a day, or your business will suffer. (Hear, hear.)

Mr. LESLIE said that, of course, the shareholders did not expect the directors to work for nothing. He asked whether the trustees would receive any remuneration? Relying on other questions and remarks, he said the vendors did not pay the preliminary expenses up to a certain point, but they did not pay the expenditure to the Coast, which he considered were preliminary expenses. Why Mr. Lane did not go out before was because the dispute about the machinery question necessitated his remaining in this country. Besides, owing to the season, Mr. Lane could not have done anything if he had gone out, so the expense would have been incurred for nothing.

Lieut.-Col. ARBUTHNOT said that when he became a trustee no proposition was made that the trustees should receive a gratuity for acting, but it had been arranged that the directors intended to offer that gratuity to the trustees. (Hear, hear.) The trust was now over, and done with.

Mr. GETHIN also referred to the expenses, which he considered high. As regards the payment of the trustees, he did not think anything further should be said on that point, except to thank the gentlemen who had acted as trustees. He questioned whether, under the Articles of Association, the directors were authorised in paying a special remuneration of £500 to Commander Cameron. Looking to the facts that vouchers for the expenditure of over £500 had not been received from the coast, he moved that the accounts be not accepted at present, but that some investigation of the accounts be made, and that the meeting be adjourned to that day three weeks. Mr. WHITFIELD seconded the motion, and expressed his concurrence in the views of Mr. Gethin.

Mr. BAXTER (solicitor) said that under the Articles of Association the directors

were fully empowered to make the payment they had done to Commander Cameron for services rendered.—Mr. WYATT, referring to the cost of the expedition, said that the gentlemen who thought it high must bear in mind that it included the cost of taking 50 Kroomen from Sierra Leone to the mines, a distance of about 900 miles. The property was over 3000 acres in extent, and cross-roads had to be cut.—Mr. JACKSON (auditor) said a shareholder had expressed his astonishment that the auditor had treated 824/- vouched which was not vouched. The balance-sheet dealt with money actually spent, and the auditors in their report stated that it had been spent and not vouched for, but, when the vouchers came of course they would be carefully examined.

Mr. AUTERBUSH said it would be injurious to adjourn the meeting, as it would only tend to perpetuate disagreements, and nothing could be more undesirable, because it injured the value of the property, and indirectly affected the efforts of the directors to make the company a great success. (Hear, hear.) Therefore, he hoped Mr. Gethin would not press the amendment, but allow the accounts to pass. It was a prominent part of the prospectus that such an expedition should be sent out to the gold coast, and it was an additional guarantee that everything would be done for the property. He did not see that they stood in any other position than shareholders in new mining companies were accustomed to stand in.

Some further discussion ensued, in which Mr. Crane, Mr. Millburn, and some other gentlemen took part; but the discussion was very much of a conversational character, and generally referred to matters of detail, of no public interest.

The CHAIRMAN asked Mr. Gethin if he still pressed his amendment?—Mr. GETHIN replied that he did.

The amendment was then put and lost, only six hands being held up in favour of it.—The motion for the adoption of the report and accounts was then put and carried, with only two dissentients.

A vote of thanks to the Chairman and directors brought the proceedings to a close.

EAST CHIVERTON MINING COMPANY.

A meeting of shareholders was held at the account-house of West Chiverton Mines, after paying a visit to their mine, and inspecting the dressing-floors, lead-house, &c., on Wednesday, March 22,

Mr. PATRICK C. DON in the chair.

The usual preliminaries having been disposed of, the statement of accounts for 20 weeks ending Jan. 21, were submitted, and showed a balance of liabilities over assets of 1479L 15s. 4d. No lead was credited, but it was understood that a sale would take place shortly after the meeting.

On the motion of the CHAIRMAN it was resolved that the accounts be received and passed, and entered in the cost-book.

The manager read his report as follows.

March 11.—At the suggestion of our secretary I forward my report (thus early to enable him to issue it with the notice convening the meeting), to be held on March 22 of the operations carried on during the past four months, and of the general prospects of your property, which I am pleased to say continue to improve as operations progress. Since the last general meeting capital progress has been made in getting the engine-shaft down to the 100, which shaft, with pitwork and ladder-way, is completed to the bottom, and the cross-cut south towards the lode is driven 15 fms. and will, I expect, reach the lode in about 3 fms. further driving, when, as I stated in my report at the last general meeting, that in consequence of the greatly improved strata of ground our then bottom level—the 90—compared with the levels over, I would advise driving a level east as well as west, having some 400 fms. on the run of the lode eastward from the engine-shaft whole to the 52, at which depth some 40 fms. have been driven, and although the ground was very unstratified, the indications were decidedly good for the production of silver-lead, and the occasional patches of rich ore met with, warrant me in thinking we shall meet with equally good results in driving east at our deeper levels, as the ground west of the engine-shaft has proved below the 74. The 90 west of the engine-shaft is still in ground, and worth 15L per fathom. A fine looking lode, and holding out good indications to improve in value. We have already driven through mineral ground to this (90) level for 35 fms. in length, which, as I said before, speaks well for the 100 coming under it, also knowing the result of the 100 in the mine to the west. The slope in the 90, west of the shaft and east of the winze, is being stoned up and communicated to the 74; as it approached the 74 it became poorer; this I fully expected; had it continued up to the 74 as rich as it was at our last meeting we should have sampled our usual 50 tons of silver-lead in time for our general meeting, to be held on March 22. However, I must admit, and I am pleased to do so, the piece of ground alluded to has turned out more lead than I expected, in fact, has far exceeded the valuation I had formed in my own mind. The lode, west of the winze, to end of the level, is standing whole to the 74, thus forming a valuable reserve of ore ground, this we shall commence to stop as soon as we eat into the ore at the 100. It will be seen by the former part of my report that our cross-cut at the 100 is getting very near the lode. We are pushing this end forward with all possible speed; the end is being driven by six first-class men at 4 fms. per fathom for the whole distance, in order, if possible, to intersect the lode in time for the meeting on March 22. The intersection of the lode at this still deeper point of settled ground will be carefully watched by all interested in the future of this mine, and looking at the fact of the mineral lengthening out so extensively in the 90, I have not the slightest doubt in my mind we shall have a far greater extension of profitable ground in our present bottom level (the 100), eastward, as well as west, the importance of which it will be, perhaps, premature to anticipate, as I have already stated we have over 400 fms. on the course of the lode in this direction. We have a suitable steam-winch, cage, and boiler, charged in our last statement of accounts, and paid for. The only extra expense now to be incurred as regards this machine will be in the erection of same, this would have been accomplished ere now but for two reasons. The first is little difficulty in acquiring the proper site; secondly, masons in the district are just now scarce, work being for the time very plentiful. But I may here state the mine has not suffered in any way through the delay, as I arranged for additional horses to draw the stuff at night. We shall now have the advantage of long days to erect our whim, and do not hesitate to say we shall do nearly as much work for it, as we should have done in the winter months for 2L, and by the time our 100 is opened up the whim will be completely ready for drawing. Therefore, taking all things into account, I believe we shall have no difficulty in getting the 100 open upwards as we may reasonably expect it to do, the probabilities are our property will prove equally as valuable as the mine to the west has done, which produced, between the 70 and 140, mineral (silver-lead and blende) that realised over 600,000L, which can be proved by the sales of ore book. We shall, shortly after the meeting sample another 50 tons of rich silver-lead, and that without trespassing on our reserves above the 90, and as we have the 100 coming in under it, all in whole ground, and as the lode runs the whole extent of the set from west to east, nearly a mile long, I feel that I cannot speak too sanguine of our prospects, I may say almost immediate prospects.—RICHARD SOUTHEY.

The report was approved.—Capt. SOUTHEY, in reply to a SHAREHOLDER, said that the 100 cross-cut was not yet up to the lode, but must be very near, and they might cut it any day.

A discussion took place as to the desirability of commencing to drive east. Capt. SOUTHEY strongly advised that no time should be lost in so doing, and on the proposition of Mr. HOSKIN it was resolved that the 90 be at once driven east.

Mr. HOSKIN proposed, and Mr. HODSON seconded, that a call of 5s. per share be made payable to the secretary by two instalments of 2s. 6d. each, payable on April 12, and May 12 respectively. The usual discount of 5 per cent. to be allowed on all amounts paid on or before those dates.

The committee were instructed to effect an insurance against accidents for the next twelve months with the Employers' Liability Company. The meeting closed with a vote of thanks to the Chairman and committee.

WEST CHIVERTON MINING COMPANY.

A meeting of shareholders was held at the mine on Wednesday, March 22, Mr. ISAAC LOVELAND in the chair.

The SECRETARY having read the notice convening the meeting, the minutes of the previous general meeting were read and confirmed.

The statement of accounts for twenty weeks ending Jan. 23, showing a debit balance, after allowing for bad calls, overestimated mineral, and sales of spare materials, of 5798L 9s. 5d., having been submitted, it was resolved, on the proposition of the CHAIRMAN, seconded by a SHAREHOLDER, that they be passed and entered in the Cost-book.—Capt. SOUTHEY then read his report, as follows:—

During the past three months we have been carrying out the suggestions of the two mining experts, Capts. Kendall and Vivian, by the driving of the 70 cross-cut, south of Hawke's shaft, and the 80 end east. In the former we have not met with any well defined lode, but at the same time a decided change in the ground has taken place within the last 2 fms. driving, there being more quartz with a good deal of mundic with water issuing freely; last price for driving, 10L per fathom. In the 80 end east we have Batter's shaftmen driving. Lode is kindly, but at present is still unproductive.—Tribute Department: Tributaries have not come forward as I expected, and the only reason I can assign for it is—several mines in the neighbourhood are being reworked, consequently labourers are more in demand, and most of our old tributaries prefer a certainty to uncertainty. We have, therefore, only one pair underground, and two at surface. Looking at these facts together with such immense quantities of water surface we have to cope with I do not see how this mine can be carried on without continuous calls on the shareholders.

It was resolved that the report be received and together with the minutes of the meeting be printed and circulated among the shareholders.

A letter addressed to the Chairman of the meeting respecting the largely increased amount of bad calls was read.

The SECRETARY, in answer to the Chairman, said—He was in a position to give an explanation of every particular in the accounts. He had gone very carefully into the whole matter, and provided himself with a written statement expressly to supply them with information if required. With regard to the very serious increase in the amount of bad calls he had a letter to submit to the meeting which dealt with the principal part of "bad calls ascertained since=43L 7s. 5d." Of that amount 33L 5s. was due from one Irish gentleman, and 33L 15s. from another. Both parties were in liquidation, the latter having failed for some 25,000L with assets of about 150L only, so nothing could be expected from the estate. In the case of the former a small dividend was offered, and after he had read the letter in reference to same he would ask the shareholders present to pass a resolution thereon. Letter read as follows:—

Pioneer's Hall, Old Broad-street, London, E.C., March 21.

WEST CHIVERTON v. GRUBB.—We have heard from our Irish agents that a meeting of the creditors of the above has been held and a composition of 2s. 6d. in £1, was proposed, and all the creditors seemed inclined to take same. Of course the resolution is subject to confirmation. From Mr. Grubb's statement of affairs it appears that his liabilities are 19,429L 14s. 5d., as against 510L 10s. 6d., and as the two largest creditors, whose claims to the latter amount to nearly 17,000L, consent to accept the offer made by the debtor, we see no other alternative but to accept the composition offered. We shall be glad to hear from you with instructions.—STACKPOLE and Son.

It was then resolved—"That Messrs. Stackpole and Son be instructed to accept the composition offered."

Mr. SHARP: I thought every shareholder was aware of the other heavier amount of "bad calls," having, on every statement of account that has been issued for the past two or three years, stated that of the arrears of call "about 1000L must be considered bad and doubtful, as stated at the last meeting." Of that amount we lost between 500L and 600L through a gentleman, who held his shares for a long time, dying deeply involved, and whose estate was not administered to. Another shareholder died owing the mine 75L, estate in Chancery. Another became bankrupt, owing for calls some 60L. I have mentioned the principal defaulters, the remainder make a long list, but the whole of the defaulters names, &c., were handed to the solicitors of the company in accordance with resolutions passed from time to time. Other items were satisfactorily explained.

On the motion of the CHAIRMAN, and seconded by Capt. Southey, it was resolved that a call of 2s. per share be made, and that the same be payable to the bankers in three instalments, as follows:—1L per share forthwith, 10s. per share on or before May 22, and 10s. per share on or before July 22, 1882. Interest at the rate of 5 per cent. per annum to be charged on all amounts remaining unpaid after the time appointed for the payments of the instalments respectively.

The meeting having been made special in accordance with the notice, it was postponed by Mr. SHARP, seconded by the CHAIRMAN—"That underground operation be suspended, and in accordance with the covenants of the leases the mine with its machinery and materials be offered to the lords of the mine, and if by them declined that the materials underground be drawn to surface, and the machinery and materials be offered for sale by public competition or private contract, or by both, at the discretion of the executive in the interest of the adventurers."

It was then resolved—"That the executive without delay do personally wait upon the lords of the mine to submit and lodge with them the special resolution just passed, and to urge upon them the desirability of a reply with as little delay as possible, in order to put a stop to the heavy costs in keeping the engine working."

The proceedings terminated with the usual complimentary vote.

CATHEDRAL CONSOLS MINING COMPANY.

The ordinary meeting of shareholders was held at the offices of the company, Draper's Gardens, Throgmorton-street, on Wednesday,

Mr. JAMES LABY in the chair.

Mr. EDWARD ASHMEAD (the secretary) read the notice convening the meeting, and the minutes of the preceding meeting, which were confirmed. The accounts for the four months ending with the costs paid Feb. 6 showed a balance of liabilities over assets amounting to 60L 10s. 1d., and the merchants' to 218L 5s. 4d. The following report was read by the secretary:—

March 25.—Engine-Shaft: This shaft is sinking below the 60, by nine men, at present carrying the shaft 16 ft. long, for the reception of bearers and cistern, and bringing down the main rods, as we have to fix a plunger-lift to take the water coming from the old mine at this point. This when completed will be a great saving in fuel, also in the wear and tear of the machinery. The lode in the shaft is 2½ ft. wide, and for about 4 ft. of the western end worth about 1 ton of copper ore to the fathom. This with the ore ground to the west, and the section of ground taken away by the old workers, showing the dip of copper to be east, more than ever confirms our opinion that this shoot of ore will soon be in the shaft, which will be pushed on with as little delay as possible. The 60 west has been driven 5 fathoms, where we communicated with the old mine workings: the lode in the bottom is 2½ ft. wide, and interspersed with copper throughout. In the old mine level, which is 3 fathoms above, we have cleared and secured, cut ground, and put in permanent brick dam, making all secure from an influx of water from the old mine. The lode in the 60, driving east of the shaft, is 2 ft. wide, but at present poor.—Lawry's Shaft: Since the last general report we have put a rod from the engine to this shaft, dropped an 8-in. pitwork, and forked the water to the 10, and are now engaged clearing the cross-cut north, which we find still full, and require timbering. Our prospects at present are more encouraging than for some time past, also confidence has been restored amongst the men employed, enabling us to work the mine more efficiently.—STEPHEN DAVEY, STEPHEN DAVEY, Jun.

The CHAIRMAN said—Gentlemen, I think we must all consider that the report presented by our agents very satisfactory indeed. When we last met we had just got the water out of the mine. Since then a great deal of work had been done in clearing the adits and erecting a dam for preventing the recurrence of an inflow of water into the mine. We have likewise touched on some of the riches of the old mine, of which you see a stone before you. That contains 47 per cent. of copper, and I can only hope that we shall have many tons of the same valuable mineral in equally good proportions. I may say that you should be very much indebted to the committee of management, especially to Mr. Waddington and Mr. Petrie, who have given us invaluable services. They have on various occasions gone to the mine without any expense whatever to the shareholders. So far as Mr. Walton and myself are concerned we have looked after the accounts in town connected with the office, and I think you will all agree that we have done the greatest amount of labour at the minimum of cost. When you look over the balance-sheet I think you will see that the costs have been very moderate indeed, and I hope that before the next meeting we shall be in a position to get some returns of ore to assist still further to reduce the costs. Any information which you may require will be readily given, and I now beg to move—"That the accounts and report now read be passed and adopted and printed and circulated amongst the shareholders."—Mr. MARTEN seconded the motion, which was carried.

Capt. DAVEY said the ground in the bottom of the engine-shaft was looking very kindly, and not only that, but they had stones of copper in it. On the western end from the shaft the rock was of a more mineral-bearing character than it had been higher up, and, no doubt, as they got further down the ore would be seen for a greater length in the shaft. They would probably find the ore intact at the next level, and then they could take it away. He had no doubt whatever that a little lower down they would have ore in paying quantities.

Mr. WADDINGTON remarked that the great object was to get the shaft down to the 80 fm. level as soon as possible. The adjoining mine—West Danzell had been very rich at about that depth, and he had seen blocks of nearly solid copper in that mine from 3 to 4 ft. wide.

On the motion of the CHAIRMAN, seconded by Mr. WADDINGTON, a call of 2s. 6d. per share was made.

The CHAIRMAN then proposed a resolution similar in terms to that adopted at North and South Penstruthal with regard to the effecting of an insurance to meet the responsibility of the Employers' Liability Act.

Mr. A. J. HAWKES seconded the proposition, which was carried, and it was decided that the men should be asked to sign a form accepting the terms of the insurance.—The meeting closed with a vote of thanks to the Chairman.

NORTH PENSTRUTHAL MINING COMPANY.

The ordinary general meeting of shareholders was held at the offices of the company, Draper's Gardens, Throgmorton-street, on Wednesday,

Mr. JAMES PETRIE in the chair.

Mr. EDWARD ASHMEAD (the secretary) read the notice convening the meeting, and the minutes of the preceding meeting, which were confirmed. The accounts showed that in the four months to Jan. 28 3 tons 8 cwt. of black tin had been sold, realising 227L 17s. 1d., while the labour costs and merchants' bills for the same period had amounted to 1448L 9s. 11d. The balance of liabilities over assets amounted to 916L 3s. 7d. The agents' report was read, as follows:—

March 27.—Highbrow Shaft: This shaft is sunk 8 fms. below the 120 fm. level in the granite, which is changing and becoming more friable as we get out of the influence of the elvan. We calculate to reach the 132 in about three months, where, from the nature of the rock and the good indications we have in the 120 west, there is every reason to expect copper in paying quantities. The lode in the 120, driving west of shaft, is 4 ft. wide, composed of quartz, chloride, mundic, and a little black oxide of copper. This end is driven 24 fms. west of shaft. The lode in the 108, driving west of shaft, is 3 ft. wide. Composition much the same as the 120. This end is driven west of shaft 30 fms. The 58 cross-cut is driven north of Highbrow lode 55 fms., and we calculate to reach the Gallich lode in 10 or 12 fms. further driving. The lode in the 132 in the back of the 58 is poor. This rise will be communicated with the winze sinking below the 72 in the course of the month. We would remark that as depth is obtained leaving the influence of the elvan, the ground is softer and more mineralised, as indicated from the good appearances of the lode at present in the 120.—S. W. POLKINGHORNE.

The CHAIRMAN said: Gentlemen, we have nothing to boast of so far as regards actual discoveries. All who are thoroughly acquainted with the mine are agreed that the prospects have considerably improved since our last meeting. Our agents since that meeting have been working mainly on the lines laid down by Capt. Josiah Thomas, of Dolcoath, in his report of Nov. 3 last. In that report Capt. Thomas remarks—"A more congenial kind of granite should be looked for, as there is a change in the 120, as compared with the levels above, the shaft should be sunk as rapidly as possible to ascertain what further change may take place in another level." This portion of the work our agents have been pushing forward, and owing to the granite proving to be of a softer and more congenial character better progress has been made than might have been expected, and the Highbrow shaft is now down to the 128. We purpose sinking to the 132; I think you are aware that this shaft is not sunk upon the lode. Probably at the required depth a short cross-cut will have to be driven north to cut the lode, when we hope to report a further change for the better at the increased depth, which I need hardly say will be very gratifying to your committee as well as to Captain Davey and the shareholders. I now move the adoption of the report and accounts.

Mr. HERITAGE, in seconding the motion, asked how far they would have to drive the cross-cut for the lode at the 132?—Capt. DAVEY: About 2 fms. we calculate from the underlay of the lode.

Mr. HERITAGE: Are we as well off sinking a perpendicular shaft as if you sunk on the lode?—Capt. DAVEY: It is not exactly a perpendicular shaft. The rock in the bottom of the mine is better than anything I have seen before since I have been connected with it, and it is the same with the western level at the 120. It is better for the production of minerals and softer for working. We have been driving 5 fms. 1 ft. 6 in. a month at 4L 18s. per fathom. The 108 we are driving 3 fms. 9 ft., which is a little harder, and is costing about 5L a fathom. We must get away from the elvan's influence before we can expect a change in the granite which is likely to conduce to beneficial results. I say without hesitation and any disinterested agent who understands his business would corroborate the statements I am making with regard to the promising appearance of the bottom of the mine. Until the last 10 fms. we have not been clear of the elvan. The appearances in the bottom of the mine are better now than at any former period. We think we have gone through the elvan, because we have seen nothing of it now for 25 fms. We are sinking 9 ft. a month in the shaft.

Mr. HERITAGE: I feel it due to the management to say that a more creditable balance-sheet than this it would be impossible to see, because all the money seems to be spent on mining.

Capt. DAVEY: We spend the money as judiciously as possible. Mr. HERITAGE: There is certainly nothing thrown away on the London office.

The SECRETARY announced the relinquishment of forty shares.

previous day, 4 tons 19 cwt. 2 qrs. of stuff having brought 30L. 8s. 6d., or about 6d. per ton of stuff as it was broken. He might further add that the produce of this stuff was fully 2 cwt. to the ton. They would see from this, he thought, that they were within the mark in valuing it at 100/- per fathom for the length of the winze, 12 ft. The next thing was to get some of it out, and this they would try to do. As they had seen from the account presented that day, their returns had increased pretty much since the last meeting, having raised over 45 tons of black tin, being between 11 and 12 tons of tin per four weeks, and the quantity raised in the last four weeks was over 13 tons. He hoped they should still go on increasing. The prospects of the mine he considered to be most excellent, such as, he thought, no mine agent could be too sanguine of. They proposed now as soon as they could to put a cross-cut out south to the Wheal Diamond lodes at the 45 fathoms level, and also north to the Wheal Peveror middle lode and north lode. These were also good points. They had done a good bit of work at surface during the past 16 weeks as was stated in the report, and he trusted that all this was to their satisfaction. They considered that in the way they were laying out the mine they should be able to return their tin at a much cheaper rate than has hitherto been done. He considered the prospects of the mine were never so good as at present, and that the time was not far distant when a great profit would be made.

On the motion of Mr. J. W. MICHELL, seconded by Mr. H. HARVEY, the accounts were allowed and passed.

The CHAIRMAN suggested that a call should be made. It was his opinion the shareholders would stand in a very much better position if they had a clear book by making a call sufficient to cover the balance. It was plainly shown in many cases that a debt hanging over a mine kept down the price of the shares. If they had a clear book he believed they would make sufficient profit by the next meeting to enable them to enter the Dividend List, where he believed they would remain for many years to come.

After some discussion it was moved by Mr. HARVEY, seconded by Mr. CHELLEW, and carried unanimously, that a call of 1s. per share be made, which would clear off the adverse balance.—This concluded the business.

GREAT HOLWAY LEAD MINING COMPANY.

The ordinary general meeting of shareholders was held at the company's offices, Great St. Helen's, on Tuesday,

Mr. W. WYLLES MACKESON, Q.C., in the chair.

Mr. E. J. BARTLETT (the secretary), read the notice convening the meeting and the minutes of the preceding one, and the report of the directors and statement of accounts (previously circulated) were taken as read.

The CHAIRMAN said: Gentlemen, I appear here in the new character of Chairman of this company, in consequence of the lamentable illness of my old and respected friend, Sir Stephen Walcott, and my first duty is to move—"That the balance-sheet as made up to March 14, together with the directors' and agent's reports taken as read, be received and adopted. Most directors so dilate on the pleasures of hope that they almost persuade their shareholders to prefer the anticipation to the reality. I prefer the pleasure of memory, particularly when it takes the pronounced form of a paid dividend. Some people say that shareholders do not care where the dividend comes from so that they get it. I do not think that is your way of viewing the matter, nor is it the board's. They prefer to tell their shareholders where the dividend comes from, so that it may be taken as an earnest of what they hope will prove recurring dividends in the future. Where did this dividend come from? Gentlemen, it came from such stuff of that (holding up two rich specimens of lead). Those pieces I brought myself from the mine, and it is from those, and such as those, that your dividend of the past and your dividend of the future has been and will be secured. I like to enter into particulars, and I hand you round a table showing month by month the production of lead and blonde ores from this mine. You will see that we have raised and sold about 10,000/- of lead and blonde, or at the rate of about 100 tons of stuff per month from March 14, 1881, to March 14, 1882. It is not ore which has been lying by, and gathered up to be dressed and sold for the occasion. No; this table purports to show you the ore that is raised, dressed, and sold during the month, so that you have the *precis* of what we are to expect during the next 12 months. We found it somewhat difficult to make that arrangement that we should raise, dress, and sell each parcel of ore within the month; but with the assistance of our secretary a splendid system has been established. This 10,000/- is a very small earnest of what we have a right to expect in the future. Prices, however, can hardly go lower, and we are, perhaps, fortunate in commencing under such circumstances, for any advance in the lead market will necessarily increase our monthly returns. Now, gentlemen, our produce has not come from simply one pocket, or from a temporary fluke, but as you will see from the report of Capt. Harris, although principally from the level engine-shaft, the workings at least four other shafts, from 100 to 200 yards apart, have during the past 12 months helped to swell our receipts. Again, at the level engine-shaft we have from eight to ten pitches, each of which gives a large proportion, so that if one fails we have many others that we can rely upon. This month we have sold already 130 tons of lead and blonde, an increase upon what we have done before, partly attributable I admit to the very fine way in which the north and south lodes in Roskell's is turning out, producing, as you have been told, rocks of lead exceeding in weight 1½ cwt. I wish you to know that we are perfectly *aufait* with every part of the management of the mine. We have so arranged our correspondence with the manager that we know to a nicely what each pitch in each shaft gives us, and whether it is paying or otherwise. Again, every month we compile a revenue and capital account so as to be able to say how much we pay on revenue and how much we pay on capital, and thus regulate our proceedings in the extension of the works. We next come to the dead or exploratory work, of which we are doing a large amount. This may bring us into new lodes at any moment, as indeed it did in the 95, at Roskell's shaft. Two or three months ago we commenced with all possible energy to open up Eytton and Partridge shafts. With a little overhauling the whole of the plant, engines, boilers, &c., except pit-work, are ready, and these shafts in a very short time will be in a position to realize to us the great extensions held forth concerning this portion of the property. Far away beyond the level engine, towards the east measures, we are informed by our captain that if we sink a shaft we shall have riches certain to our hands, and towards this our workings at the level engine-shaft are turning. Then, again, at True Blue, on the mountain, a few men, without the aid of machinery, are now raising some very fine-looking stuff, and here we contemplate sinking a shaft, which will take us right into the body of the True Blue lode. There are several other points of a similar character, all of which are under consideration. Not a single month has passed but that some of the directors, or the secretary, have been present watching the advances that are made. We had first to complete the dressing-rooms, which have been set throughout with flagstones. The upper floors show dimensions of 102 square yards, and the lower floors 315 square yards, and we have put up an excellent storehouse, and made three large reservoirs. Most elaborate dressing machinery has been erected on the floors, worked by water-power, and over the whole a corrugated iron roof has been set up. In this way our dressing cost is brought down to a fixed at the very low figure of 10s. 6d. per ton. We have also constructed a saw-mill, &c. With regard to prices, our average for lead has been 11s. 8s., and for blonde 3s. 15s. 6d. On comparison we find our neighbours averaged 10s. 6s. 6d. for lead, and 3s. 3s. 6d. for blonde; leaving us with 2s. more for our lead, and 1s. 3s. more for our blonde; and why is that? Partly from the character of our ore, but very much, I think, from the manner in which we dress it. In conclusion, the directors call upon you to put faith in their statements. One unshaken was here last time, who curiously enough met me when I was spending the long vacation at Holywell, as I hope, for the benefit of the company. After seeing everything he had the courage to say, "There is not a single word of your speech at the meeting which was not in accordance with the facts—so much so that the whole place might have been photographed from your remarks." You must all believe in our statements, and if you support us the dividends will be doubled, or even trebled. Money is wanted, not because we are in difficulties, but because we want to develop the capacities of this magnificent property. There are 200 acres as yet untouched, and, therefore, it is that we are desirous of completing our capital to the £60,000. The motto of the directors has been, "Whatever thy hand findeth to do, do it with thy might."—Major ADDISON seconded the motion.

Mr. WILLMOTT said he had no intention of criticising what the eloquent Chairman had said. It was not every company who had a Queen's Counsel for Chairman, and a practical man as well. (Hear, hear.) At the same time, they must not be led to expect too great things. When he was here last year he expected 25 per cent. after the eloquent speeches he heard. But do not let the shareholders imagine that they had found a gold mine.

Mr. BARTLETT: We have found something better, I hope. (Laughter.)

Mr. WILLMOTT went on to say that their secretary was almost as eloquent as their Chairman. He (the speaker) was, however, hoping that something very good would result during the year. He went to the property, and had the pleasure of seeing the Chairman there up to his knees in mud, and working like a Briton. It was very satisfactory to see him there—(Hear, hear)—and, at the same time, he was not even Chairman. Gentlemen of the legal profession were usually talkers, not workers, but in the Chairman there was the happy combination. At the same time he was a little too sanguine; and, by-the-by, did he or any of the directors ever go down the mine? He knew Mr. Bartlett did, and, in fact, that gentleman was the backbone of the concern. He had great confidence in his judgment and great faith in his prudence in the direction of affairs. He had noticed, however, that a Col. Smith, of the Royal Engineers, had been added to the board; but he would like to know, though an engineer, what was his mining experience. He would much rather have seen a man of business, and, in fact, he would like to see at least six directors, and such men should be placed on the board who would be prepared to go down the mine, for whatever they had at surface, the stuff underground was the pivot of the whole concern. The Chairman had undoubtedly worked hard to bring matters to their present issue, and he was very pleased to hear that within the last month a great discovery had been made, and which had qualified him to speak with the eloquence he had done to-day.

Mr. J. WALKER said he was not an unbeliever at the last meeting, and he was not one at this. He was sure they were all delighted at the report of the Chairman, and the increased value of the property during the past 12 months. Undoubtedly the property was valuable, and the moment it began to pay a dividend, that was the moment when shareholders began to take an interest in it. He found, however, that they had issued 800 more shares, and he wished to ask why this had been done without first consulting the shareholders. He would like to know how it was that sundry debtors had grown since the last year, why they were debited with two years' debenture interest, and the share capital, now being £40,000/-, how came it that 24s. was paid as a dividend instead of 70/-, or 5 per cent. on the full amount? He was extremely satisfied with the report, and it was gratifying to note that whereas the receipts recorded for 1880 only amounted to some £200/-, in the last 12 months the sales had been 10,000/-.

Mr. E. J. BARTLETT: I am much obliged to you for the questions you have put, and hope I shall be able to answer them satisfactorily. With regard to the two years' interest charged to the debit of profit and loss account, it will be in the recollection of shareholders that at the last meeting we did not go into the question of profit and loss, but simply showed expenditure on one side and receipts on the

other. Therefore the profit and loss is, in this balance-sheet, debited with two years' interest. (Hear, hear.) With regard to the dividends, it is true there are 10,800 shares issued, but I may tell Mr. Walker that upon those 800 shares no dividend has been paid. It is very proper that some explanation should be given why they were issued, especially as at the last meeting it was thought that we should have ample capital for the concern. From the remarks that have dropped from the Chairman you will see that we have, without being too sanguine, a grand property to develop, and circumstances occur sometimes between one meeting and another which make it desirable that we should attack with greater energy a certain portion of the property. This has been the case between the present meeting and the last, and 800 shares were allotted, but upon them, as I have said, no dividend has been paid. Therefore 24s. is represented the amount paid in dividend, 44/- being kept back in respect of arrears. With regard to the western portion of the site, Eytton and Partridge shafts, I am very glad that we are now attacking it with great energy. Every farthing expended here will almost immediately give us a good return. I am not too sanguine. It is not a question of the legends of old miners, which I generally receive with distrust, but I am confident, from a consensus of testimony, that as soon as the water is taken out of Eytton and Partridge shafts, we shall find the lead. I recollect when this part was working before, and when a return of 60 tons a month or more was being made, and I am perfectly certain that when the water is taken out of the shafts we shall within a month be in the market with our lead. (Hear, hear.) By the judicious employment of more capital we shall attain great results from this western ground. I hope, therefore, you will not be led to think that the money has been unwisely expended. As to the item of sundry debtors—if we have anything like a successful year in 1882—, that item, I expect, will be doubled; at “by” rate, I hope so. (Hear, hear.) A portion of that is put down as due for lead and blonde ore that we have delivered, and for which payment has since been made; it also includes amounts due on the 800 shares recently issued, a fair proportion of which, I am pleased to say, since the balance-sheet was made up, has been received. Another item of the balance-sheet I wish to see very much increased is the expenditure upon Eytton's, and with the works in full swing, I hope that if we live, and have the pleasure of meeting you this time next year, that we shall find a “one” before this entry of 62s. and that it will represent actual sales of ore; for, as we deal with such firms as Walker, Parker, and Co., and all the great smelting-houses, there is very little fear that we shall make a bad debt. (Cheers.)

Mr. WALKER: What credit do you give?

Mr. BARTLETT: About a month for blonde, but not so much for lead; and for some of our produce we get cash. We never accept a bill. (Hear, hear.) As you would no doubt like to have some further information in regard to the mine since the issue of the report dated March 17, I may say that I have a letter from Capt. Harris this morning, in which he says that the 95 north is worth 2½ tons of lead a fathom. The directors and myself were anxious to ascertain whether the lead held good in the roof and bottom. In regard to the roof we could easily prove the character of the vein there, and I am glad to say that during the last few days he has put on a full staff of men, and have now got an additional stop, which is worth 2 tons of lead to the fathom. I suppose, next to the level engine-shaft, it is the most valuable discovery that has been made in Holway. At the level engine-shaft, he says, the various tribute pitches and stope are producing the same as for a long time past. Brammock shaft pitches are yielding 1 ton of lead and 2 tons of blonde per fathom. If you look at your prospectus you will find that we called attention to the upper workings explored by our predecessors. We only expected to find certain pitches which men could take on tribute, and afford the company a slight profit; but the results have exceeded our expectations, and there is the prospect of great prosperity at that point. It is a great satisfaction to me, and I trust it is to you, to know that every part of the property we have attacked has exceeded our expectations as to value. With the good management we have at the works, and with the good management I trust you think we have in London, we shall be able, I doubt not, to meet you next year with a much more satisfactory statement, and be in a position to circulate among you a few more of those dividend warrants, an instalment of which you have but recently. (Cheers.)

The CHAIRMAN, in reply to a further question, said the directors would pay off the small amount of debentures (1825/-) whenever they thought it desirable.

Mr. ALFRED THOMAS proposed the re-election of the retiring directors, Major J. C. Addison and Col. J. H. Smith, R.E.

Mr. W. M. J. WALKER said he objected to the election of Col. Smith, because he was not a practical man. He thought they wanted the mercantile element upon the board, and he proposed Mr. Heyer.

Mr. WILLMOTT advocated the claims of Mr. Thomas.

The CHAIRMAN said he did not know Mr. Heyer, but he did know Col. Smith, and when a vacancy occurred he was glad to have the opportunity of identifying such a man with the company. Four years ago he inspected the works of the mine, and was able to do so intelligently from his great engineering experience. Col. Smith had been employed by the Government for years, and a better director could not be found if all London were searched. He asked the meeting to pass the resolution, and promised that the board would consider what had been said.

Mr. HEYER, whilst thanking the gentlemen who had proposed him for a seat at the board, stated that he had no intention of serving as a director, and begged that his name might be withdrawn.

After a desultory conversation the resolution was carried unanimously.

Mr. VANS AGNEW seconded the motion, which was agreed to.

On the motion of Mr. J. WALKER the meeting closed with a hearty vote of thanks to the Chairman and other officials connected with the prosperity of the company.

PRINCE OF WALES MINING COMPANY.

The ordinary general meeting of shareholders was held at the offices of the company, Gracechurch Buildings, Gracechurch-street, yesterday.—Mr. J. Y. WATSON, F.G.S., in the chair.

Mr. C. B. PARRY, the secretary, read the notice convening the meeting, and the minutes of the last meeting, which were confirmed.

The CHAIRMAN said: Gentlemen, the accounts presented to this meeting, owing to the thirteenth month of the year coming in, show five months' costs against four months' returns, and a balance of liabilities over assets of 1349L. 0s. 1d. The returns of tin had been 547L. 19s. 9d.; copper ore, 194L. 13s. 3d.; burnt leavings from the tin dressing, 50L. 10s.; total, 79L. 19s. 9d., and putting four months' costs against it, the loss in the four months' working would be about 750L. The costs are much higher than anticipated at the last meeting, while the copper ore realized much less than was expected. The ores on the mine are about 20 tons of copper and 3 tons of tin. In reference to the future the report is of a very satisfactory character. The committee have been fully alive to the desirability of sinking the shaft, but they deferred its consideration until sufficient had been seen of the lode lately cut into in the 102, and also for this meeting to decide as to the extra expenditure it will incur. The committee do not see how a call of less than 2s. per share can be avoided at the meeting, but they anticipate a larger return of tin and copper for the next four months. The report states that the lode has very much improved in the 102 from what it was in the 95; it is now large and well defined, with rich stones of copper ore and some stones of tin. Everything, the agents think, seems to point to the great probability that we shall have a rich tin mine in depth.

The report from the agent was then read.

The CHAIRMAN said one or two of the shareholders had been over the mine recently, who perhaps would have something to say about it.

Mr. ROSEWARNE said he had been over the mine lately in company with Mr. Heritage. He was very much pleased with what he saw there. It was no doubt a most important thing that the shaft should be continued from the 102 fm. level straight away, as there was a great change for the better going on, and the appearances were better than they had ever been before. The stones of which he examined on the mine were of a rougher kind than anything seen in the levels above, and he believed they would have the experience of the Redruth and Camborne district, and that, having had a great bunch of ore near to the surface, they were now practically between the hair and the hoof. He had no doubt that as the shaft was sunk from level to level they would develop a very rich mine for tin. Everyone would induce one to work the mine for time.

Mr. HERITAGE endorsed Mr. Rosewarne's observations, and added that the local shareholders whom he met on the mine were very much pleased with the appearance and prospects of the mine. They, however, strongly advised that the shaft should be sunk, and they appeared to be surprised that this work had been stopped.

The CHAIRMAN, in reply, pointed out that at the last meeting they had not cut the lode at the 102, and it was decided to cut the lode and see what it was like before sinking the shaft further. The costs for five months had also been heavy, against four months' returns, and they would have been much heavier if the shaft had been sunk. The sinking of the shaft could not have been recommended more than a month ago. The committee did not think it right to interfere with the agents in the management of underground workings of the mine; and they had certainly not ordered stopping the sinking of the shaft as seemed to be supposed; nor, in fact, had the sinking ever been suggested by agents until to day.

The SECRETARY stated that every liability was charged in the accounts.

Mr. BEASLEY proposed the adoption of the accounts and the agent's report.—Mr. HERITAGE seconded the proposition, which was carried unanimously.

Some discussion having taken place with regard to the call which should be made, it was decided, on the motion of Mr. WILLMOTT, seconded by Mr. BEASLEY, that the call should be 2s. per share.

Mr. Heritage was appointed a member of the committee of management, in the room of the late Mr. Macfarlane.

The meeting closed with a cordial vote of thanks to the Chairman.

FORTUNA COMPANY.

The report of the directors, prepared for presentation at the meeting on Thursday next, shows that the profit on the past half-year's working amounted to 2492L. 15s., which shows a small decrease of 145L. 7s. as compared with the previous account, but seeing that the prices realised for the lead sold have been even less than in the six months to June 30, the result may be considered satisfactory. The output of ore from the Canada Incosa and Salidos Mines shows an increase of 128 tons, 1881, 2108 tons; six months to the end December, 2236 tons. The raising at the San Anton and San Francisco Mines during the same period were—Six months to June, 1881, 200 tons; six months to the end of December, 270 tons. The reserves of discovered ore are now estimated—at the Canada Incosa and Salidos mines, 6500 tons; at the San Anton and San Francisco, 1500 tons; total, 10,000 tons. This shows no alteration in the reserves at the old mines, but an increase of 700 tons at San Anton and San Francisco.

The mining operations which have been carried on are fully described in the reports from the superintendent and mining agents. They show that the works of trial have been actively pursued in all the mines, and that the prospects for the current half-year are favourable. The San Anton and San Fran-

cisco Mines have thus far opened out very satisfactorily, and promise ere long to contribute to the company's profits. It will thus be seen that the purchase and development of these mines have proved an advantageous investment of the reserve fund. The smelting results show but little variation from those of previous half-years. The work is well and cheaply done, and the produce of lead has been sent to the ports and shipped to England with great regularity. There has been a decline in the price of lead since the last general meeting, the price now being about 12s. per ton lower than it was at that time. The last sale of silver-lead made was at 14s. 2d. per ton. The audited accounts show that the balance at the credit of the profit and loss account on Dec. 31 amounted to 260L. 12s. 1d. Out of this a dividend of 1s. 10d. per share has been declared, absorbing 229L. 13s. 4d., and 114L. 11s. 8d. has been placed to the reserve fund, the balance to be carried forward being 195L. 7s. 1d.

ALAMILLOS COMPANY.

The report of the directors, prepared for presentation at the meeting on Thursday next, states that the accounts which the directors have the pleasure of submitting to the shareholders

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219L. 8s. 4d., which added to the previous balance made a total in hand of 1249L. 8s. 1d., which was carried forward.

VICTORIA (LONDON).—The directors have received advices dated Feb. 14, giving the result of the working of the South Clunes Mine for the month ending Feb. 1, as follows: Total quartz crushed, 2277 tons; total gold obtained, 558 ozs. 6 dwt.; 12 grs., average per ton 4 dwt., 21 grs.; receipts, 1539L. 15s. 6d.; payments, 1189L. 10s.; profit, 350L. 5s. 6d.

TOLIMA.—Frias: The January returns show a profit of 318L. 12s. 11d. The underground agent reports 293 ft. 4 in. of ground expanded, of which 213 ft. 8 in. were productive, leaving 79 ft. 8 in. of unproductive ground. "There is no change in the mine," the superintendent remarks, "Calling for special remark since my last communication except that in the driving of the 70 fm. vein has commenced to show mineral, with indications of improvement as the level is continued eastward. The 70 west is likewise mineralised, but to a less degree than the 70 east. No doubt further west the vein (which is 12 to 14 ft. wide) will improve."

PIERREFITTE.—March 27: The manager reports as follows:—A great improvement has taken place in the value of the lode in the winze No. 2 since my last report, but there is nothing new to remark at the other points where we are now working. No. 7 stopes are worth about 4 tons of lead and 1 ton of blonde per cubic fathom. No. 1 stope is yielding 4½ tons of lead and 2 tons of blonde per cubic fathom. In the winze the lode is worth from 10 to 12 tons of blonde and 2 tons of lead per cubic fathom. We shall stop the stonings of the lode at this point to communicate with the level below. We have broken about 30 tons, and sent to the floors 110 tons of ore during the past week; 9 tons of lead ore and a few tons of blonde have been dressed by the machines, and 15 tons of blonde of about 50 per cent. produce has been hand-picked. We should have had a much larger quantity, but that rain and snow hindered the men from working. We have had very heavy falls of snow and rain during the week, and we have now more water than we want. Great progress is being made with the erection of the new dressing machinery. The whole of the jiggings hatches are made and in their places. The water wheel for driving the machines is in a forward state. Next week we shall begin to place the ladders.

YORK PENINSULA.—The directors have received advices from the committee of inspection of the company at Adelaide with reports from the Kurilla Mine to Feb. 14 last. The following are extracts from the reports of Thomas and John Anthony: Kurilla Lode: At the 57, east of Hall's shaft, we have laid in air pipes from the main in the shaft to the cross-cut going south, and have driven the cross-cut 4 ft. In the tunnel at the 57 the total distance driven from Hall's shaft towards Morphett's lode is now 20 fms., with 12 fms. more to drive. At the 55 east we continue to drive east and west on the south part of the lode. The lode in the eastern end is still highly promising, but is not yielding sufficient ore to pay. In the western end the lode is worth 2 tons of 16 per cent. ore per fathom. The stopes are worth 3 tons of 16 per cent. ore per fathom. At the 45 east on the south branch the lode is worth 2 tons of 16 per cent. ore per fathom. The 35, driving east on the north part of the lode, continues poor. At the 25 in new section 338 driving is resumed, the winze from the 15 being holed. The lode is still highly promising, and is yielding some good ore, but not sufficient to pay. Two men have taken a tribute pitch on an offshoot south at 7s. in the 11. In the roof of the 15 six men are working on tribute, at an average of 7s. 11d. in the 12. At the 10, just west of Gurner's shaft in section 398, we drove east on a wall, which resulted in hoing to the north part of the said shaft. We then drove the cross-cut north about 7 ft., and cut a tolerably promising lode or branch of the cross, having a fair south wall, which seems to be in the direction of the Kurilla lode. We are driving east on this by two men at 3s. 15s. per fathom. Encouraged by this indication we put down a pit from the surface about 7 fms. north of Gurner's shaft into the shelf rock; we then drove south about 4 ft., and came upon a branch of good ore lying against a wall pointing a little to the north of east. This is just the spot where the Kurilla lode should run, but we have not yet done enough to feel sure that we have found the key to what has been up to this time a puzzle. We were induced to resume a drive at the 10 in section 398, in a direction south-west from a point a little west of Gurner's shaft on the south part of the lode. The result has been very encouraging. After driving a short distance some good green ore was found, and has held good for about 2 fms., and promises to continue. Regarding it as highly probable that the ore would run up above the roof, and also with the object of ventilating the drivage, we put four men to sink below the surface on the 1st east, at a spot about 5 fms. west of the face of the drive below, the burrow of Gurner's shaft preventing sinking vertically to the spot. Directly below the line rubble we came upon a floor of green and grey ore about 4 ft. thick, under which a large mass of lodestuff lies, soft and highly genial. We do not yet know the area of the floor, but we have laid it open in an east and west direction a distance of 10 ft., and have not reached the end of it either way; while this is the best shallow deposit we have ever seen on this mine, it is premature to express an opinion as to what it really is or is connected with. At the Wallaroo Mines, as well as here, most of the offshoots have been traced from the lode northwards, the south being generally the terminal wall. If this rule holds good in this case, the discovered deposit should belong to a new parallel lode still lying south; time, however, will prove this surmise to be correct or otherwise.—Morphett's Lode: At the 55 east the lode has been much disordered by a slide dipping from west to east, or contrary to the general rule here. We are heading north of east in search of the other part of the lode, of which there are indications in that direction. At the 55 west there is a small leader of ore worth 1 ton of 16 per cent. per fathom; we are hopeful that this western ground may yet again do well, either still further west or at greater depths. We base our hopes on the regularity of the lode, the persistent though small leader, and the genial rock in which the lode occurs. The stopes in the above drivage are without alterations—say, 2 tons of 20 per cent. ore per fathom. At the 43 east, in a line with the wide stopes that yielded so much ore from the 20 to the 30, and where in driving east we were so much disappointed with the quality of the lode as compared with the upper portion, we have discovered the main part in the south side of the drive; it is too soon to say what we are likely to get from this place, but at present the lode is worth 4 tons of 16 per cent. ore per fathom. It will be seen that considerable improvement has occurred in the general appearance of the mine since the date of last report.—Ore Returns: There had been sold in the colony 222 tons ore, and there remained on hand at the mine 144 tons of about 16 per cent., besides low-class ores.

COLORADO UNITED.—March 6: Advices from the mine state as follows:—The 12th drift, east of Silver Ore shaft, shows about 2 in. of mineral. The 12th, west of Silver Ore shaft, has been stopped working for the present. The stopes Nos. 1 and 3 are looking about the same as usual, with an average of about 1½ in. of mineral. The winze to connect 11th and 12th levels is still being sunk; no change to report. Nothing fresh concerning the tributaries. We have commenced to drive the West Terrible tunnel again, a contract being let at \$15 a foot. —March 12: The 12th drift, east of Silver Ore shaft, is not looking quite so well as when I last wrote. In stopes Nos. 1 and 3 there is no difference in their appearance. Winze to connect 11th and 12th levels, east of Silver Ore shaft, is looking about the same—if anything a trifle better. Nothing fresh to report concerning the tributaries. The mill is being put in thorough working order preparatory to starting up. It is calculated we have from 2000 to 2500 tons of concentrate dirt on hand.

POTOSI.—Mr. de Lemo (Feb. 26) writes: From the statement I send you you will observe that our ore contains about 2½ ozs. of gold per ton, that about 450 grains have been lost in the tailings, of which about 300 grains, or about ½ oz., is fine gold, and about 158 grs., or nearly ½ oz., is contained in the sulphides. The quantity of sulphides contained in our ore amounts to from ½ to 1 per cent., and we are on the right side taking 1 per cent. as the average. I have been giving the most careful attention to our amalgamation, and am putting in some new ripples and boxes in various parts of our machinery, which I believe will assist in reducing the loss of free gold to a minimum. I have checked the extravagant use of quicksilver, and inserted some fine screens which I borrowed from a neighbouring company. With these alterations, and by employing intelligent men who have to watch carefully the fluctuations in the quality of the quartz, using quicksilver in accordance therewith, I have every reason to believe that the assayas in future will show more advantageous results.—**Machinery:** Work with the new boiler is being pushed on as hard as possible. The difference in the crushing and the saving of fuel when once the new machinery is started will be considerable. There may be a little delay on account of the smoke stack not being all here yet, still I trust it will reach in time, as it is already over a month on the road from Las Tablas. The new machine shop is nearly completed, and as soon as the small driving engine is in its place we shall have the finest fitting g shops in the country, and shall be able to turn out any kind of work.—**Peru:** With a good deal of trouble I managed to bring about 24 tons of this quartz from Atwood and new shafts. We started crushing it today in a separate mortar. Next mail will advise you of the result, which I anticipate will be satisfactory. I am anxiously looking forward to start work at the mine.—**Chile Mine:** Herewith Capt. Hampton's report, which is satisfactory. The sinking of No. 1 shaft has been pushed on vigorously, and the same will be done at the main shaft. Within one month we shall have some splendid stopes. The air shaft will soon lose its importance for us as a hoisting shaft, after going down further 15 to 20 ft. in it we shall have only very little ground to the east of it, and all the hoisting can be done easily through No. 1 main shaft. The health is very fair all through, although there have been a few light cases of fever, but nothing of importance.

—Thomas Hampton, Feb. 20: **Main Shaft:** I am pleased to state that we have resumed the sinking of this shaft, which has been so long neglected. The lode is small at the shaft, but the foot and hanging walls are carrying their proper bearings, and I have no doubt that when the point of the horse of ground that split the lode has been reached the lode will form itself, and make very rich. No time will be lost in pushing down the shaft as fast as possible. The stopes west of this shaft have somewhat improved during the past fortnight. We have found a branch in the footwall which I believe to be part of the lode, and we are now tracing it back towards the main shaft. Should this continue, and both branches meet in conjunction with each other, there is not the slightest doubt but that the lode will prove very rich.—**No. 1 Shaft:** We have sunk this shaft during the fortnight 10 ft.; the lode has declined a little in size, but has a very good appearance, and with good speed by the end of March we shall have good stopes east and west of this shaft. All the necessary timber is being fixed to make the shaft secure without any delay whatever in the sinking.—**Air Shaft:** We have sunk this shaft 2 ft.; the lode is 3½ ft. wide, and much the same in quality. The stopes east of this shaft look well; the lode is 5 ft. wide, and breaks well. The strictest attention is being paid to the sinking of the shaft, and no time will be lost in getting them sunk as fast as possible. All the stopes are well timbered, and the skip-roads in good repair, and all the machines are working well.

FLAGSTAFF.—M. Gunderson, March 5: No. 6 level is now in 165 ft.—a gain of 8 ft. during the week; formation is getting hard. The winze on No. 6 is down 22 ft.—a gain of 10 ft. during the week; following iron seam, with not much change in rock. The cross-cut on No. 6 level, running towards hanging-wall, is in 17 ft.—a gain of 4 ft. during the week, still following small seam of iron. The rise on No. 5 level is up 55 ft.—a gain of 16 ft. during the week; formation clay, sand, and boulders, with some iron. The cross-cut on No. 5 level is now in 93 ft.—a gain of 8 ft. during the week; formation same as last week. The cross-cut on No. 1 level is in 98 ft.—a gain of 7 ft. During past week we struck a small chilimay or bunch of high grade ore—looking first-rate at present time; it is about 3 ft. high and 1 ft. wide. My man about the winze on No. 6 is to sink as deep as possible, with a view of leading the water out of main shaft into the ledge; if this can be done, I am satisfied the mine will be comparatively dry the whole year. The main part being off the ledge and well into the footwall, the water does not run into the rock as it would were the shaft in the ledge. We are nearly out of wood, and are waiting for Mr. Austin, to know what he is

going to do. Wood is to be had in Alta, the cost of hauling being \$1.50 per cord more than summer season. I have 18 working men at present—11 miners, four carmen, two engineers, fireman, cook, and myself. The pay-roll for last month called \$1284. Board deducted.

ENGLISH-AUSTRALIAN GOLD.—Mark Pollard, Fryerstown, Feb. 14: The 350 ft. level has been extended 19 ft. during the past month, with 3½ ft. of stone in three leaders, but the ground is very hard on the western side of the drive, and the quartz very small; there is a small block or stone making on the footwall. I have not seen any gold in these leaders this month. I think the quartz in this drive is poor. The 190 ft. level has been extended east 8 ft. for the past month, which is still very hard sandstone, with very small seams of quartz running all through the face of the drive, which makes it very bad to drive. I thought we should have driven more ground this month, as we had a little better ground in the beginning of this fortnight, but it only lasted just for 1 ft. In the 240 ft. level, in stoping between Nos. 1 and 2 rise, a block of stone on the footwall of the lode was met with, but I do not think it can be much, as nothing has been seen of it in either of the rises. It is not going up, neither has anything been seen of it in the 280 ft. level. The drive east of the tributaries' old drive, 280 ft., is all quartz for the drive in height, which is 8 ft., so there is not much ground to work from here, as we are taking all the stone before us in the drive. The quartz north and south of cross drive is getting very small. I have only two men working in the stopes south of the cross drive now. I have two of the men who were working there in the 150 ft. level, and the other two in the stopes in back of the 150 ft. level. The stone in the 210 ft. level is also very small; there are two men stoping in this level, which I think payable. The 150 ft. level has been extended 23 ft. for the past month, with about 4 ft. of quartz, but the eastern footwall is turning its head to the west of the stone; whether it will cut off the quartz or not I cannot say. The bottom of the stone is down to the bottom of the drive within 3 ft., and dipping north a little. The stopes in back of this level are improving for stone, the leaders getting thicker going north and east. We have a large body of ground to shift for every stone. We crushed 660 tons of stone in 22½ days; result, 105 tons, 9 dwt. retorted gold.—**Western Shaft:** The north drive, in the 210 ft. level, has been extended 15 ft. for the past month, but very little quartz in the drive as yet; the footwall is about 2 ft. thick, and very good ground. The 138 ft. level, going south from the winze, has been driven 18 ft. during the month; so there is a large body of stone in the back of this drive dipping south; by driving another 10 ft., the quartz will be at the bottom of the drive. I have one man in each drive, and the other assists them where he may be required. I shall put the three men in the 138 ft. level, as soon as I can get room for them to work to any advantage. The receipts in the colony for the month were as follows:—From gold sold, 436L. 19s. 6d.; from 24 tons 18 cwt., 2 qrs. of pyrites, 152L. 4s. 1d.; total, 589L. 3s. 9d. The payments during the same period were—For mine cost, materials, 507L. 4s. 5d.; for cost of treating and carriage of pyrites, 64L. 8s.; total, 571L. 12s. 5d.; balance surplus, 17L. 11s. 4d. The cash balance at the Bank of Victoria had increased from 1093L. 8s. 7d. to 111L. 19s. 1d., and there were no liabilities.

SANTA BARBARA GOLD.—T. S. Treloar, Pari, Feb. 17: During January 1244 tons of mineral were stamped, yielding a produce of 3159 ozs. of gold, or equivalent to an average of 3'10½ ozs. per ton of stone stamped. This produce of 3859 ozs. of gold, valued at \$3. 6d. per oztava, amounts to 1640L. 1s. 6d., and the estimated working cost for the month, at exchange 22d., being 1507L. 10s. 4d., leaves an estimated profit of 132L. 11s. 2d. for January. In addition to the above mining work cost, the sum of 314L. 2s. 6d. was estimated as having been expended on capital account during January, in respect of the construction of the new watercourse, hauling machinery, and additional house accommodation. The mine captain reports as follows for January:—The quantity of stone raised during the month amounted to 1515 tons, of which 292 tons were rejected at the surface about 7 fms. north of Gurner's shaft into the shelf rock; we then drove south about 4 ft., and came upon a branch of good ore lying against a wall pointing a little to the north of east. This is just the spot where the Kurilla lode should run, but we have not yet done enough to feel sure that we have found the key to what has been up to this time a puzzle. We were induced to resume a drive at the 10 in section 398, in a direction south-west from a point a little west of Gurner's shaft on the south part of the lode. The result has been very encouraging. After driving a short distance some good green ore was found, and has held good for about 2 fms., and promises to continue. Regarding it as highly probable that the ore would run up above the roof, and also with the object of ventilating the drivage, we put four men to sink below the surface on the 1st east, at a spot about 5 fms. west of the face of the drive below, the burrow of Gurner's shaft preventing sinking vertically to the spot. Directly below the line rubble we came upon a floor of green and grey ore about 4 ft. thick, under which a large mass of lodestuff lies, soft and highly genial. We do not yet know the area of the floor, but we have laid it open in an east and west direction a distance of 10 ft., and have not reached the end of it either way; while this is the best shallow deposit we have ever seen on this mine, it is premature to express an opinion as to what it really is or is connected with. At the Wallaroo Mines, as well as here, most of the offshoots have been traced from the lode northwards, the south being generally the terminal wall. If this rule holds good in this case, the discovered deposit should belong to a new parallel lode still lying south; time, however, will prove this surmise to be correct or otherwise.—Morphett's Lode: At the 55 east the lode has been much disordered by a slide dipping from west to east, or contrary to the general rule here. We are heading north of east in search of the other part of the lode, of which there are indications in that direction. At the 55 west there is a small leader of ore worth 1 ton of 16 per cent. per fathom; we are hopeful that this western ground may yet again do well, either still further west or at greater depths. We base our hopes on the regularity of the lode, the persistent though small leader, and the genial rock in which the lode occurs. The stopes in the above drivage are without alterations—say, 2 tons of 20 per cent. ore per fathom. At the 43 east, in a line with the wide stopes that yielded so much ore from the 20 to the 30, and where in driving east we were so much disappointed with the quality of the lode as compared with the upper portion, we have discovered the main part in the south side of the drive; it is too soon to say what we are likely to get from this place, but at present the lode is worth 4 tons of 16 per cent. ore per fathom. It will be seen that considerable improvement has occurred in the general appearance of the mine since the date of last report.—Ore Returns: There had been sold in the colony 222 tons ore, and there remained on hand at the mine 144 tons of about 16 per cent., besides low-class ores.

DEVALA MOYAR GOLD.—March 6: Extracts from the mine manager's report: At Hadware Reef the ground during the last week has been harder than usual, and the contractors have made slow progress. I have arranged to put on three shifts of men and keep the work going night and day. At Salomon's reef the main tunnel has been driven 6 ft. for the week. Driving improving, and the reef presents a more settled appearance, and better prospects are obtained; total distance driven along the reef, 163½ ft. The upraise has been 12½ ft., in most of this distance the prospects are good. No. 2 tunnel has progressed during the week 2½ ft.; total, 29½ ft. I expect within a month both No. 2 tunnel and the raiseup will break into the old native workings. This will give us ventilation, and enable us at once to put on 100 to 150 coolies to break stone as fast as the handies can cart away. The tramways and shoots in the mine and the passes outside, under which the handies back up and fill, are all pushed, enabling us to work as cheaply as possible.

Empress Reef: Wanting more men at Strathern and Rhodes reef we had to take the men from this reef.—Strathern Reef: The main tunnel has been driven 19 ft. during the last week mostly in the footwall of the reef; I now feel confident we are through the main reef 33 ft. thick. On Monday we will start two drives in the main reef on a level with the tunnel, one on the footwall and the other on the hanging-wall of the reef, driving one north and the other south alongside of the reef, or rather the width of the drive in the reef. It has been decided to place the mill in this reef, and we will at once proceed with the erection of it. This I do not intend shall be a lengthy or an expensive business. We have most of the material on the estate or ordered, and will take good care that everything necessary is on the ground in good time, so that there will be no stoppages or waiting for material. The site selected possesses good natural advantages, and is within 100 yards of the reef, the track coming out of the main tunnel of the reef and emptying into the mill pass. From surveys we find we can get plenty of water for all purposes by cutting a race about one mile in length. Good cutting will not cost more than Rs. 2½ per chain.

RHODES REEF GOLD.—Extracts from the mine manager's report, March 6: For the last week the mill has been kept going during the day time. It will be some weeks (say three) yet before we can start running night and day. In Australia we generally ran night and day with two shifts of men, the men getting a little extra pay and working twelve hours. Here we will have to work with three shifts, as the men and coolies would not be able to work twelve hours continuously.

You will perceive, therefore, that we shall have to break the rock to get accustomed to work three sets of men as firemen and battery-men. Through some bungling at the foundry, one of the pulleys to drive the bubbles has not yet arrived, so that the bubbles have not started, and as I am sure that the pyrites contain a good percentage of gold, I have not been anxious to push the crushing until we were in a position to save the pyrites. From the appearance of the gold on the plates and considering we are starting a new mill with the spaces between the false bottoms and the linings, &c., to fill up, I think the quartz will give a fair return. I may mention that in raising quartz from Rhodes Reef last week I have seen better gold than I ever saw in the reef before. We have the bricks on the ground and will start to-morrow with the erection of the reverberatory furnace and Chilian mill. It will probably be six weeks before they are completed, but this will be no serious drawback, as we can save the pyrites until the Chilian mill is completed. The remaining and last pulley to complete the bubbles is on the road from Madras. No. 1 cross-cut, which is being driven to cut the Chilian mill is advanced. The remaining and last pulley to complete the bubbles is on the road from Madras. No. 1 cross-cut, which is being driven to cut the Chilian mill is advanced.

LAKE SUPERIOR NATIVE COPPER.—Telegram from Montreal, dated March 29, reports that the drift in the No. 1 shaft exhibits a decided improvement, and produces metallic copper in small plates, and in shots of an average size of the end of the thumb. In No. 2 shaft they are drifting on the vein carrying rich copper glance reported to have been cut in telegram of March 8, and they are now in a branch 4 ft. wide with definite walls.

UNITED MEXICAN.—E. Hay, Feb. 24: Mine of San Cayetano de la Ovejera: The two cross-cuts of San Mateo and San Antonio are being continued and no feature of importance has yet been met with. The works are deemed necessary.—Mine of San Antonio de la Ovejera: In the end of San Juan, west, during last week the lode went on widening, and reached a breadth of 2 metres; then the bajo was discovered another lode, which is the one we work on now, as directed by Mr. Rocha, when we saw the change last Wednesday. The lode to the alto is not worked on for the present. As this working is getting very narrow we have placed the ventilating apparatus in it to pump out the foul air. —Mine of Santa Monica: The only change in the appearance of the cross-cut of San Juan, south, is that a perpendicular relliz (wall of the lode) was discovered last Wednesday in the middle of the end.

MISSOURI.—Advices received this week from St. Clair state that at the St. Clair shaft the ground in 400 north has become harder, there are some specks of ore in the vein. The lode is now 7 in. in width. The 315 north rise has been commenced, as also the test stop in the 245 north. At old engine in the 270 north the ground has also become harder, the vein is 9 in. in width. The shaft is being put down. The lode there is vigorous.

Mining Correspondence.

BRITISH MINES.

ASHFETON UNITED.—J. Garland, March 29: Last month ending 25th Inst a trial level was driven west on a shaft of ore in the back of the 20 west 2 fms. 5 ft.; the lode became unproductive after driving 3 ft. Driving has been suspended and the men put to stop the back in a lode, which will yield 1½ tons of lead ore to the fathom. The 40 west was driven 5 fms. 5 ft. on the north branch, which was productive till within 9 ft. of the end; it is now poor, but contains stones of lead and blende. The south footwall branch, which appears to be the main part of the lode, will yield about 1½ ton to the fathom. A rise has been started on the new shoot of ore in the back of this level west of footwall rise in a lode valued at 1½ ton of lead ore to the fathom. We have commenced from the high backs of a pitch in the 60, west of Millford's rise, to rise towards the 40; this rise, which we expect to put through in about 2 months, will ventilate the western ground in the 60 and 40 levels, and render the working of the air machines unnecessary. The 70 west was extended 2 fms. 4 ft. 8 in.; the lode is about 5 ft. wide, and for the most part yields good blende with a little lead ore, but in the forepart we have a harder lode than usual and less ore. We shall probably have a change in the lode before long. The tribute pitches, which are now being worked at an average tribute of £1.10s. per ton of lead ore, continue to yield fairly well.

BEDFORD UNITED.—H. Trease, March 29: North Lode: The 115 east is without change since last report. The tributaries in this part of the mine are doing well.—McCallan's Shaft Bridge Lode: The shaft is sunk 6 fms. below the 20, the ground continues good for sinking, and the lode is improved in size and appearance since last report; it is now 3 ft. wide, composed of pebble, mundic and grey copper, a very nice looking lode of great promise. The lode in the 30 west is 3 ft. wide, mixed with capel, grey ore, and mundic. The lode in the 30 east is 6 ft. wide, and worth 20t. per fathom—as fine a lode as one could desire to see. The 20 east is suspended for the present, the men are cutting a trip-plat at the shaft. The lode in the 20 west is 3 ft. wide, composed of mundic, iron-gossan, and copper. I hope to intersect the air-shaft in about another month. All the machinery is in good working order, and every part of operation is being pushed with all possible speed.

BEUNO CONSOLS.—J. Woolcock, March 29: The stope in Wood shaft is yielding good ore for the dressing-floors.—New Shaft: I have put the men to drive a cross-cut east to prove the full width of the lode.—Engine-House Level: The adit is now cleared out in No. 1 stope. Yesterday men were engaged taking the ore broke in this stope to surface, and as soon as this is clear we shall take the ore from the small dump, then we can go on stoning and sinking. I expect the timber for the engine-house in a few days. We are getting on with the dressing of ore as fast as possible.

BLUE HILLS.—S. Bennetts, R. Harris, March 25: There is not much alteration to notice in the 80 east end. In the Blue Burrow shaft the north lode is a foot wide, and containing some good tin-stuff. The 40 east end is in connection with a fault, and the lode unsettled. The 30 east end is worth about 10t. per fm.

BWLCH UNITED.—Wm. Northery, March 29: Saturday last being our usual monthly setting-day, the following bargains were re-set:—The 50 east, to be driven by four men, at 4f. 10s. per fathom, the men to clear their own stuff. For the last 5 ft. driving we met with several small faults, accompanied with small 1½s of quartz, east of which the stratum has undergone a sudden and favourable change, and the lode has greatly improved in size and character, being fully 3 ft. in width, intermixed throughout with killas, quartz, sulphur, and occasionally spots of lead ore. The 12 east under adit has been re-set, to four men, to drive at 4f. 15s. per fathom, the me to clear their own stuff; the lode is from 1½ to 2 ft. in width, composed of killas, quartz, and spots of lead ore. The 12 west under adit was re-set to six men, to drive at 5f. per fathom: the lode is from 2 to 3 ft. in width, of a most promising character, and worth 1 ton of silver-lead ore per fathom. The stope in the back of the 30 has been securely timbered, still fixed, &c., to enable us to resume stoning, by six men, at 2f. 15s. per fathom; the lode is from 5 to 6 ft. in width, and worth 1½ ton of silver-lead ore per fathom. I have placed a pair of men to clear and secure the back of the 50 to prepare for rising in back of same to meet with the run of good lead ore seen in the bottom of the 40. I have examined the lode in the forepart of the 70 east and find that it is from 3 to 4 ft. in width, composed of killas, quartz, blende, and cubes of lead ore; the present appearance and character of the lode is similar to what we have seen in the above levels. I am pleased to say that good progress is being made in draining Hitchin's engine-shaft; the water will be in fork at the 80 by to-night.—Marvin's Lode: The stope in the back of the 15 under adit has been re-set, to four men, at 2f. 15s. per fathom; the lode will yield from 12 to 14 cwt. of silver-lead ore per fathom. The stope in the bottom of the adit has been re-set, to four men, to stope at 2f. 17s. per fathom; the lode will yield from 15 to 18 cwt. of silver-lead ore per fathom. The pumping, drawing, and dressing machinery are all in good order and working well. Dressing is carried on regularly.

CARNAK VONSHIRE GREAT CONSOLS.—W. H. Borlase, March 30: I beg to hand you setting-report.—Endean's engine-shaftmen to cut top plat 10 ft. long by 9 ft. by 7 ft., and put in solar for the sum of 50t. The 14, to drive east of Endean's shaft, at 5f. per fathom; lode looking very promising, and showing a little lead. No. 1 stope behind this end at 5f. per cubic fathom; lode when last taken down worth 20 cwt. of lead per fathom. No. 2 stope is cut through to the winze. No. 3 stope, at 3f. 10s. per fathom; lode producing 20 cwt. of lead per fathom. The stope in back of the 14, east of diagonal shaft, to raise this level with the level driven west of Endean's shaft, at 4f. 10s. per fathom; lode worth 20 cwt. of lead per fathom. Stope west of diagonal shaft, at 3f. per fathom; lode worth 30 cwt. of lead per fathom. Having formed an opinion that the late drivage at the 8 below adit west of diagonal shaft had been driven alongside of the lead bearing part of the lode, I yesterday put two men to cut into the hanging-side, and we have to-day met with a branch of lead that will produce 3 tons of ore per fathom (sample lump sent you by rail to-day). I am pushing forward all work to enable us to start working the diagonal shaft as early as possible. An intermediate level to drive east of a winze close to the junction of the east and west lode with the counter lode below adit, at 3f. per fathom. Lode in the back of level is worth 3 tons of ore per fathom, but the forepart is disordered by vugs, which I think will wear out shortly, and then I hope to report a good lode up and down the end, which is at present producing about 15 cwt. of lead per fathom. The winze to sink in the bottom of the a 10, in advance of the bottom level, at 1f. per fathom; lode worth, for length of winze, 9 ft., 2 tons of ore per fathom. Rise in back of No. 2 stope to 15 ft. wide, and the part carried in the end is yielding 9 tons of mundic, mixed with good quality ore, per fathom, and showing a very kindly appearance. The lode in the winze sinking below the 10 is looking exceedingly well, and worth for mundic and ore 20t. per fathom. The lode in the stope in the back of this level (the 120) is worth 10t. per fathom. The lode in 95 east is without change during the past week. The lode in the 70, east of cross-cut, is exceedingly large, and the part carried in the end producing 15 tons of arsenical mundic per fathom. We are busily engaged in preparing a parcel of copper ore for the next sampling, which we calculate will be about 100 tons.

GLASGOW CARADON CONSOLS.—Wm. Taylor, Wm. J. Taylor, March 28: South Lode: The 114 east is about the same value as last reported—8f. per fm. The lode has a very kindly appearance, and we are daily expecting it to improve.

The 114 west is worth 6f. per fathom; the ground in both these ends is very favourable, and good progress is being made in driving.—Harvey's Lode: The 102 west has improved; a fine looking lode, now worth 12f. per fathom, price for driving 3f. 10s. This is now opening out good ore ground fast. Stope in the back of this level worth 6f. per fathom. Two stoves in the back of the 90 west are worth 12f. per fathom each. The tribute pitches on the whole are turning about their usual quantities of ore. All our points of operation are being pushed on, and we are busy preparing ore for the next sampling. The computed quantity will be given in our next report.

GOODEVERE.—R. Knott, March 29: In the drivage west from shaft the lode, I am pleased to inform you, has further improved, being now fully 2 ft. wide throughout the end, producing good work for tin. The men who have been stoning east of shaft are put to drive on the course of the lode, which is 4 ft. wide, producing low quality tin-stuff. In the deep adit east, on new lode, there is no change calling for remark. The lode has a kindly appearance, producing a little good quality tin. In the stope in back of this level the lode is from 2 to 3 ft. wide, producing saving work for the stamps, and occasionally rich stones of tin. Sinking operations on this lode will be commenced next week, which will be urged on as fast as possible.

GODDARD'S LEAD.—R. H. Vivian, March 30: The stope east of engine-shaft, towards the middle shaft, continues to look as well as ever; worth about 10cwt. of lead and full 5 cwt. of blende to the fathom. We can continue stoning in this direction for over 40 fms. in length; all ore ground. We have from 15 to 18 ft. stope laid dry, which will, we hope, turn out a good deal of lead and blende ore. Our pumping gear is now in fair trim, and keeping the mine dry with ease. We are pushing on as fast as possible.

GORSEDD AND MERLLYN CONSOLS.—March 30: In the 90 west we are in precisely the same ground as we had in the level above before we came into the north and south lode, so I am looking for favourable results now very soon. All the tribute pitches have improved.

GREAT HOLWAY.—W. T. Harris, March 30: I have no particular change to notice since the general meeting, progressing very satisfactorily in every department.

GREAT POLGOOTH UNITED.—Wm. Richards, March 28: Engine-shaft: The general character of the ground is much the same as last reported, and the men continue to make good progress in sinking.—Wheeler's Shaft: We are sinking with all possible dispatch in a good channel of ground for the production of mineral.—Flat Lode: We have not yet cut into the lode at this part; hope to do so on an early day. In the cross-cut driving south of the old mine lode the ground is favourable for progress.—Tip-shaft: Here the men are engaged tamping up and securing the top of the shaft. All surface work has been pushed on with as usual.

GREAT WEST CHIVERTON.—John Curtis, March 29: Since my last report I am glad to inform you we have had more lead in the lode than I have seen for some time, with mundic and blende, and looking kindly to further improve.

GREEN HURTH.—Jas. Polglase, March 23: The Swan shaft is the same in value as last reported—5 tons of ore per fathom. No. 1, bottom level north, is worth 5 tons of ore per fathom. The stope in back of the above level is poor at present, and will continue to be for about 2 fms. in length. No. 3 stope is worth 1 ton of ore per fathom. No. 5 stope is worth 1 ton of ore per fathom. No. 5 stope is worth 3½ tons of ore per fathom. No. 6, north end (31), is worth 5½ ton per fathom. We have commenced to enlarge the level leading to No. 4 vein. Dressing going on well.

GWYLLYR AMALGAMATED.—J. Roberts, W. Sandoe, March 29: Clementina: We have no change whatever to report here since last week, either in the ends or stokes. We are pushing on the dressing as fast as possible.—Aberlin: The ground in the rise at No. 2 appears to be a little easier; the leader of lead on the footwall continues much the same. The stope at the bottom of No. 2 looks well for blende, and there appears to be good strong patches of lead towards the hanging side, which we must leave to stand for awhile, so as not to mix the earth too much with the blende.

HINCHINBROOK CONSOLIDATED.—Thomas Richards, March 29: The lode in the 25, east of the engine-shaft, is composed of capel, quartz, peach, prian, &c., and in places good stones of copper ore. In the 12, east of the shaft, the lode has much the same appearance, containing capel, quartz, arsenical mundic, and in places good stones of copper ore. The lode in the stope in the back of this level is worth 1 ton of ore per fathom. In the deep adit level, east of the south cross-cut, the lode contains capel, quartz, sand mundic, and occasional good stones of grey copper ore. The stope in the back of the deep adit level on the No. 2 lode is worth 1½ ton of good copper ore per fathom. The ground in the south cross-cut continues favourable. The railway, excavations, &c., for the dressing-floors are progressing favourably.

KIRK MICHAEL.—R. Howe, March 23: There is no change to report in either of the drivings at the 20. We sold on Monday 20 tons of lead to Nevill, Druse, and Co., at 9f. 1s. per ton.

DENBIGHSHIRE CONSOLIDATED.—R. Prince, March 30: We have driven out east in the 66, and struck the main lode. We shall now send out a short cross-cut—say, 7 yards from Quaker's shaft—to strike the lode, where it can be worked more economically than from the present point. In the 112 cross-cut we have reached the bottom of the soft productive ground proved in the 66. I have, therefore, set the men to rise up on one of the joints, so we may now expect to be in the lead any day. The stope look well.

DERWENT.—J. Morpeth, March 28: Accompanying this monthly report is the list of bargains set for April—Jiffies' Shaft, Middle Vein: The 95 east of shaft continues easier to explore; now let at 5f. 10s. per fathom. The vein, which is 5 ft. wide, is composed principally of flint spar, a little limestone, and lead ore; worth of the latter 1 ton per cubic fathom, or 1½ ton for whole width of level—7½ ft. The flats eastward over this level by side of vein are somewhat less expensive to shift, and present indications give hope for an improvement for ore; present worth is 22 cwt. per fathom, let at 7f. per fathom. The flats northward produce 27 cwt. ore per fathom, let at 6f. 10s. per fathom, and at a point several fathoms further west the flats are yielding 28 cwt. ore per cubic fathom, also let at 6f. 10s. per fathom. Over this (the 95) we have now 3 stokes, Nos. 1 and 2 are each worth 15 cwt. ore per fathom, and No. 3 produces 12 cwt. ore per fathom. This reminds us that this shaft are each 4 ft. wide, and each producing 12 cwt. ore per fathom. The end of this week the shaft will be repaired, new brattice and footwall fixed down to a point within 14 fathoms or so of the bottom, and when down, will be a strong permanent job.

DEVON FRIENDSHIP.—H. B. H. Daw, W. Gill, March 30: The lode in the 30 east of Bennett's shaft has considerably improved during the last few days. The lode is now 3 ft. wide, and we believe there is still more of the lode standing to the south. We are now taking down the south side, and will let you know fully on this point next week. The lode in the 30 west is 4 ft. wide, and worth fully 5 tons of arsenical mundic per fathom. No change has taken place in the rise in the back of this level since we valued it last. The lode in the 12, west of Bennett's, is opening out fine lode, full 4 ft. wide, producing about 6 tons of arsenical mundic per fathom, and we are continually breaking good stones of copper ore from this end. We are clearing up the winze in the bottom of the adit level. We have not yet reached the bottom, therefore we cannot report to you the actual depth. The adit end east and stope in the back of this level are without any alteration since last reported on.—Surface Operations: We have two jiggers completed; one of them we shall connect to the shafting driving the oil jiggers, until the arrangement for driving the other three,

jiggers are completed. This will enable us to discharge six girls now employed on the old jiggers.

DEVON GREAT CONSOLS.—Isaac Richards, March 30: Wheal Josiah: In the 144, east of the count-house shaft on the new south lode, the lode is 3 ft. wide, and composed of capel, quartz, mundic, and a little copper ore.—Wheal Emma, Inclined Shaft: In the 137 east, east of Friend's cross-cut, the lode part being carried 5 ft. wide, is of a promising character, and yielding good stones of copper and mundic ores.—New Shaft, New South Lode: In Jones's rise, in the back of the 145 east, the lode now being taken down is 6 ft. wide, and is yielding 3 tons of copper ore and 6 tons of mundic per fathom. In the 115 east the lode is 3 ft. wide, composed of capel, quartz, peach, prian, and small quantities of copper and mundic ores. Judging from its promising appearance, an early improvement may fairly be expected.—Railway Shaft: In the 205 and 190 west, on the south part of the lode, the drivages are being carried by the side of the lode for more speediness. In the 175 west, on the south part of the lode, the lode is 3 ft. wide, of a very promising character, and yielding good stones of copper and mundic ores.—New Shaft, New South Lode: In Jones's rise, in the back of the 145 east, the lode now being taken down is 6 ft. wide, and is yielding 3 tons of copper ore and 6 tons of mundic per fathom. In the 115 east the lode is 3 ft. wide, composed of capel, quartz, peach, prian, and small quantities of copper and mundic ores. Judging from its promising appearance, an early improvement may fairly be expected.—Railway Shaft: In the 205 and 190 west, on the south part of the lode, the drivages are being carried by the side of the lode for more speediness. In the 175 west, on the south part of the lode, the lode is 3 ft. wide, of a very promising character, and yielding good stones of copper and mundic ores.

DEVON GREAT UNITED.—Isaac Richards, March 30: Wellesford's shaft has reached the depth of 111 fms. 4 ft. below the 104, and at this point the lode is 2½ ft. wide, of a very promising character, and yielding some copper and arsenical mundic.

MELLANEAR COPPER.—John Gilbert, March 29: In the 20 cross-cut driving south of Gundry's shaft the killas is getting disorderly again with patches of elvan, and the ground is a little harder for driving. We have cut through the elvan course, which is 2½ fms. wide, in the 70 cross-cut north of the main lode east of Gundry's shaft, and the ground now is a light coloured killas, very congenial for copper ore. In the 100 driving west of shaft, on the main lode, the lode is 4 ft. wide, and yielding 2 tons of copper ore per fathom, and looking promising for further improvement. The lode is 5 ft. wide, and yielding 1½ tons of ore per fathom, in the 110 driving west of shaft, on the south part of lode, and the ground is wet and spare for driving. In the 110 driving east of shaft, on the main lode, the lode is 6 ft. wide, and yielding 2 tons of ore per fathom, and preventing a very kindly appearance. The part of the lode carrying in the 120 driving west of shaft, on the main lode, is 5 ft. wide, and yielding 1½ tons of copper ore per fathom, and some good stones of tin. The part carrying in the 120 east of shaft is 5 ft. wide, and yielding 1 ton of copper ore per fathom and some saving work for tin. In the winze at the bottom of the 90 west of shaft, the lode is 6 ft. wide, and yielding 3 tons of ore per fathom: this winze is about 4 fms. in advance of the 100 end. The lode is 4 ft. wide, and yielding 2 tons of ore per fathom, in the rise in the back of the 110 west of shaft. In the 110 driving west of shaft, on the main lode, the lode is 6 ft. wide, and yielding 2 tons of ore per fathom, and some good stones of tin. The lode in the 110 driving west of shaft, on the main lode, is 5 ft. wide, and yielding 1½ tons of copper ore per fathom, and some good stones of tin. The lode in the 110 driving west of shaft, on the main lode, is 6 ft. wide, and yielding 2 tons of ore per fathom, and some good stones of tin. The lode in the 110 driving west of shaft, on the main lode, is 5 ft. wide, and yielding 1½ tons of copper ore per fathom, and some good stones of tin. The lode in the 110 driving west of shaft, on the main lode, is 6 ft. wide, and yielding 2 tons of ore per fathom, and some good stones of tin. The lode in the 110 driving west of shaft, on the main lode, is 5 ft. wide, and yielding 1½ tons of copper ore per fathom, and some good stones of tin. The lode in the 110 driving west of shaft, on the main lode, is 6 ft. wide, and yielding 2 tons of ore per fathom, and some good stones of tin. The lode in the 110 driving west of shaft, on the main lode, is 5 ft. wide, and yielding 1½ tons of copper ore per fathom, and some good stones of tin. The lode in the 110 driving west of shaft, on the main lode, is 6 ft. wide, and yielding 2 tons of ore per fathom, and some good stones of tin. The lode in the 110 driving west of shaft, on the main lode, is 5 ft. wide, and yielding 1½ tons of copper ore per fathom, and some good stones of tin. The lode in the 110 driving west of shaft, on the main lode, is 6 ft. wide, and yielding 2 tons of ore per fathom, and some good stones of tin. The lode in the 110 driving west of shaft, on the main lode, is 5 ft. wide, and yielding 1½ tons of copper ore per fathom, and some good stones of tin. The lode in the 110 driving west of shaft, on the main lode, is 6 ft. wide, and yielding 2 tons of ore per fathom, and some good stones of tin. The lode in the 110 driving west of shaft, on the main lode, is 5 ft. wide, and yielding 1½ tons of copper ore per fathom, and some good stones of tin. The lode in the 110 driving west of shaft, on the main lode, is 6 ft. wide, and yielding 2 tons of ore per fathom, and some good stones of tin. The lode in the 110 driving west of shaft, on the main lode, is 5 ft. wide, and yielding 1½ tons of copper ore per fathom, and some good stones of tin. The lode in the 110 driving west of shaft, on the main lode, is 6 ft. wide, and yielding 2 tons of ore per fathom, and some good stones of tin. The lode in the 110 driving west of shaft, on the main lode, is 5 ft. wide, and yielding 1½ tons of copper ore per fathom, and some good stones of tin. The lode in the 110 driving west of shaft, on the main lode, is 6 ft. wide, and yielding 2 tons of ore per fathom, and some good stones of tin. The lode in the 110 driving west of shaft, on the main lode, is 5 ft. wide, and yielding 1½ tons of copper ore per fathom, and some good stones of tin. The lode in the 110 driving west of shaft, on the main lode, is 6 ft. wide, and yielding 2 tons of ore per fathom, and some good stones of tin. The lode in the 110 driving west of shaft, on the main lode, is 5 ft. wide, and yielding 1½ tons of copper ore per fathom, and some good stones of tin. The lode in the 110 driving west of shaft, on the main lode, is 6 ft. wide, and yielding 2 tons of ore per fathom, and some good stones of tin. The lode in the 110 driving west of shaft, on

NORTH GREEN HURTH.—James Polglase, March 23: There is nothing new to report in the drivage south on the No. 2 vein from the deep adit level. This bargain is suspended until the air shaft, now in course of sinking, is put through for ventilation. The shallow level is suspended, and the men are trying a piece of ground southward. The small trial, made near the boundary, is not of sufficient importance to continue further.

NORTH GROGWYNION.—J. Kitto and Son, March 27: Since the date of our last monthly report very considerable and satisfactory progress has been made in the further development of the mine underground by sinking the new engine-shaft, and by driving levels east and west of same on the course of the lode, and also with the erections in connection with the new plant and machinery which has now become necessary to enable us to continue the present rate of development; and as the prospects of the mine have correspondingly improved in the meantime, we are pleased to be able to say that present appearances fully justify the proposed outlay. The new engine-shaft is now down about 9 fms. below the 21, being a total depth of 42 fms. from surface. The lode has varied in width from 2 to 5 ft., but has never been without ore from the day it was first commenced, and at times has yielded as much as 30 cwt.s. of ore to the fathom. In the present bottom of the shaft the lode is as strong and kindly as it has ever been, and is yielding splendid stones of lead ore, with every prospect of further improving as greater depth is attained. In driving the 12 and 24 both east and west from the engine-shaft we have seldom been without ore, and in several places we have passed through grounds of a good paying character, but as our underground workings are as yet very shallow, the mine itself being near the top of the mountain, the lode has not yet assumed that permanently settled character that we expect it to do in deeper levels; hence our anxiety to get down the engine-shaft as rapidly as possible, being fully persuaded from past experience, not only in connection with this mine, but other mines by which this is surrounded, including Grogwynion, Frongoch, and Red Rock, that we can scarcely fail to open up in a comparatively short time a very rich and profitable mine. We may here remark that the Grogwynion property, which adjoins this mine, presented precisely the same geological features at a corresponding depth, upon lodes running parallel to the North Grogwynion lode, no less than 7426 tons of lead ore, and we see no reason whatever why North Grogwynion should not prove equally productive. The winze sinking below the adit level for ventilation and for opening out the ground for stopes is looking very well, and is yielding at present about 12 cwt.s. of lead ore per fathom. The buildings for the new pumping, drawing, and dressing machinery are nearly completed, and some parts of the engine have already been fixed, and should the weather prove moderately fine we hope to have it all finished and ready to work in two months from this date. We already have a large quantity of good lead-stuff at surface, which has come from the sinkings and drivings alone, so that if things continue to go on as we anticipate we shall have a good parcel of ore dressed and ready for market in a month from the time the new machinery is set in operation, and judging from present prospects, we see no reason to doubt that we shall be able to follow it up with regular and satisfactory sales.

NORTH HERDOSFOOT.—T. Trelease, March 33: We have no change in any of our bargains worthy of remark in the past week, the end and stopes remaining at just the same value as last week.

NORTHERN LEAD.—T. Tonkin, March 29: The drivage west into quarry hazel still from near Low shaft is looking likely to improve; the present yield of ore is 8 cwt.s. to the fathom. The stopes above the 42, east section, yields 12 cwt.s. of ore to the fathom in easy ground. The rise above the 25, east section, is in a likely lode 4 ft. wide, and yields good stones of lead ore. The 15 fm. level stopes are of a very favourable nature; the ground is easy, and the yield 12 cwt.s. of ore to the fathom. The weather is very fine, and dressing going forward as usual.—**Brandon Walls:** The lode in the 50, going east, is 4 ft. wide, composed of cal-spar and fluate of lime, of a very kindly nature, which improves as we advance, and is now yielding good saving work. The lode in the drivage, the 30 going east, is a strong and masterly vein, 5 ft. wide, and yields some saving work for lead ore. The lode in the forebay of the 37, west of the shaft, is likely to become very rich shortly; the present yield of ore is 25 cwt.s. to the fathom. The result of our operations in this mine is highly satisfactory, as every point we have attacked is now producing lead ore, and has a strong tendency to improve as we advance.

NORTH WALES FREEHOLD COPPER AND SMELTING.—H. B. Vercoe, D. Douglas, March 29: There has been nothing done in the engine-shaft for the last few days, consequently there is no change since our last report. In the 21 foot of engine-shaft the lode in roof is 6 ft. wide, of quartz mixed with copper ore. In the 30 north of engine-shaft we are stripping down the lode to its full width, and we are pleased to state that it looks well and is producing rich copper ore. The appearance of this end is particularly encouraging. It is the most valuable lode we have ever seen in the bottom of the mine, and it ought to stimulate the shareholders to provide the small capital now necessary to bring the mine into a paying state. In the stopes in roof of the 30 north, at No. 2 pump we have a wide and strong lode fairly mixed with copper ore throughout. We are now obtaining a good quantity of ore-stuff from this point, and between this and the 30 north are enabled to keep the washing department fully employed. At no time since the company took these mines over have they looked so well as now, and by dint of hard work we are enabled to raise a larger quantity of ore than at any former time. We are urging on the dressing as fast as possible, and shall sell two parcels of ore in about three weeks from now; the No. 1 lot will be of a very high produce, and it is certain to realise a good price. The machinery and plant are in good order and working well!

OREL TOR.—H. Bulford, J. Bodda, March 30: No change whatever to report, all points looking same as reported last week.

PANDORA.—H. Nottingham, March 29: New Lode: The 45 end is opening a showing a strong lode between two regular walls, about 3 ft. wide, containing large lumps of solid rich looking lead, which I valued at 1½ ton per fathom, and a good deal of blonde; the best lode we have had in driving for some months past. I am of opinion this is a continuation of the No. 2 run coming down from the 33 south. The north end of No. 1 stope has become much poorer; we are now starting a fresh stope along the back a few fms. further south; here the lode is worth 25 cwt.s. of lead and 1½ ton of blonde to a fathom. We are now also starting to rise for another stope over No. 2 to go under the 33 winze; this is worth 1 ton of lead and 1½ ton of blonde per cubic fathom. In the 33, No. 2 stope, the stope we have been working south of No. 2 winze is poor and suspended; two of these men are now placed in No. 2 stope at the 45. We have still two stoping north of No. 2 winze, which stope is worth 15 cwt.s. of lead and 25 cwt.s. of blonde to a fathom. No. 3 stope is suspended for the present, and the men removed to sink No. 3 winze in the 23 south, on Goddard's lode. As soon as they have the road cleared and made good, and the bottoms cleared of stuff, I intend for them to sink, and follow this shoot of ore down to the 33.—Surface: The weather is rather wet and stormy, but we are making very fair speed in dressing. The lead to be sold to-day will be sent off on Friday, and the blonde to follow in a few days after.—P.S. I have omitted the stope under the 45, north of that, which is worth 1½ ton of lead per cubic fathom: this is going into whole ground north of the shaft.

PARYS COPPER CORPORATION.—T. Mitchell, March 27: Setting Report: The 90 west of cross-course, on the No. 2 lode, by six men, the month, with aid of rock drills, at 8½ per fathom, the men to pay all cost, including explosives, &c. Progress in the driving during the past month has been retarded owing to the valves of the compressor getting out of order, and the same having to be repaired, during which time the end was driven by hand labour; the ground in this end looks kindly, and produces good patches of copper ore and sulphur; we are hoping for an improvement here soon. The rise in back of this level by nine men, at 12½ per fathom; the lode here will yield at present about 3 tons of copper ore per fathom; the ground is rather hard for cutting. We have let four tribute pitches to 18 men at the usual prices.

T. Mitchell, March 30: We have no change of any importance here this week. The various points of operation are looking much the same as they were at the setting-day.

PELYN WOOD.—T. H. Bennett, March 30: Our progress in driving is not quite as fast as formerly, the ground being stiffer, the lode, however, maintains its size and character, and although the ground is somewhat spare for driving it is nevertheless a very congenial mineral-bearing strata. We have strong and very important reasons for being very hopeful for good results at each of the three junctions of the east and west lodes ahead of the main drivage, and which no doubt will be reached by or within the time stated in the last report presented at the recent general meeting.

PENHALLS.—S. Bennetts, J. Goyne, March 25: The lode in the 80 west end from Blue Hills' boundary is yielding low quality tinstuff, but not of much value. The 75 east end is poor. The rise above the 60 east is worth 31. per fathom, and the winze below the 55 east is worth 20½ per fathom. On the north lode the 40 west end is worth 15½ per fathom. There is no change to report in either of the north cross-cuts.

PENNANT.—March 30: The lodes in the 40 maintain the same value as for some time reported, the stopes are yielding as for a long time past, and we are doing very well on the dressing-door.

PEX-YR-ORSEDD.—R. Prince, March 33: Since my last report we have intersected an east and west joint, containing ribs of spar about 4 in. wide, spotted with mudiic. We do not intend making any trial upon it, believing that our best chance of success lies in continuing the driving south; there has been an important change since we have passed the intersection, both as regards the character of the ground and the dip of the strata. The driving is now entirely in the limestone, and the beds are dipping towards the centre of the east and west depression so strongly marked on the surface; we expected to find one of the powerful lodes that have been proved to the west of us. When this intersection takes place we feel very confident of meeting with good results.

PHOENIX AND WEST PHOENIX UNITED.—John Fruscott, Henry Harvey, Joseph Hosking, John Rundle, March 30: Setting Report: Old Sump Shaft: To drive the 150 west, by two men, at 10½ per fathom; this end is mostly in granite. To drive the 130, west of cross-course, by six men, at 18½ per fathom; worth per fathom 22½. At the 120 to strip down the north part of the lode close to the present end to prove its size and value, by four men, at 5½ per cubic fathom. To stope the back of this level, by six men, at 4½ fm. per fathom; worth per fathom 15½. To drive the 110 west, by six men, with boring machinery, at 9½ fm. per fathom; worth per fathom 12½. At the 100 to strip down the north part of the lode, by four men, at 6½ per fathom; worth as far as cut into 6½ per cubic fathom. No. 1 stope in back of this level, by six men, at 4½ fm. per fathom; worth per fathom 12½. No. 2 stope in back of this level, by six men, at 3½ fm. per fathom; worth per fathom 20½. No. 4 stope in back of this level, by six men, at 3½ fm. per fathom; worth per fathom 16½. To drive the 50 fm. level west, by four men, at 10½ fm. per fathom; worth per fathom 20½. No. 1 stope in back of this level, by four men, at 2½ fm. per fathom; worth per fathom 15½. To stope the back of the 50, by four men, at 3½ fm. per fathom; worth per fathom 20½. The 30 to drive west, by four men, at 10½ fm. per fathom; worth per fathom 14½. No. 1 stope in back of this level, by six men, at 4½ fm. per fathom; worth per fathom 20½. No. 2 stope in back of this level, by six men, at 2½ fm. per fathom; worth per fathom 25½. To stope the back of the 60, by six men, at 4½ fm. per fathom; worth per fathom 18½.

PHOENIX AND WEST PHOENIX UNITED.—John Fruscott, Henry Harvey,

Joseph Hosking, John Rundle, March 30: Setting Report: Old Sump Shaft:

To drive the 150 west, by two men, at 10½ per fathom; this end is mostly in granite. To drive the 130, west of cross-course, by six men, at 18½ per fathom;

worth per fathom 22½. At the 120 to strip down the north part of the lode close to the present end to prove its size and value, by four men, at 5½ per cubic fathom. To stope the back of this level, by six men, at 4½ fm. per fathom; worth per fathom 15½. To drive the 110 west, by six men, with boring machinery, at 9½ fm. per fathom; worth per fathom 12½. At the 100 to strip down the north part of the lode, by four men, at 6½ per fathom; worth as far as cut into 6½ per cubic fathom. No. 1 stope in back of this level, by six men, at 4½ fm. per fathom; worth per fathom 12½. No. 2 stope in back of this level, by six men, at 3½ fm. per fathom; worth per fathom 20½. No. 4 stope in back of this level, by six men, at 3½ fm. per fathom; worth per fathom 16½. To drive the 50 fm. level west, by four men, at 10½ fm. per fathom; worth per fathom 20½. No. 1 stope in back of this level, by four men, at 2½ fm. per fathom; worth per fathom 15½. To stope the back of the 50, by four men, at 3½ fm. per fathom; worth per fathom 20½. The 30 to drive west, by four men, at 10½ fm. per fathom; worth per fathom 14½. No. 1 stope in back of this level, by six men, at 4½ fm. per fathom; worth per fathom 20½. No. 2 stope in back of this level, by six men, at 2½ fm. per fathom; worth per fathom 25½. To stope the back of the 60, by six men, at 4½ fm. per fathom; worth per fathom 18½.

PHOENIX AND WEST PHOENIX UNITED.—John Fruscott, Henry Harvey,

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worth 9d. per fathom.—King's Shaft: The 160 end east is worth 9d. per fathom. Two steps in the back of the above level are each worth 10d. per fathom. The 150 end east is much improved; now worth 8d. per fathom. The 140 end east is worth 6d. per fathom. A step in the back of that level is worth 8d. per fathom. Good progress is being made with the work at surface. All the machinery on the mine is working well.

TO THE METAL TRADE.

FOR COPPER, TIN, LEAD, &c., apply to—
MESSRS. PELLY, BOYLE, AND CO.,
SWORN METAL BROKERS,
ALLHALLOWS CHAMBERS, LOMBARD STREET, LONDON.
(ESTABLISHED 1849.)

ORFORD NICKEL AND COPPER COMPANY,
SMELTERS AND REFINERS OF COPPER.
THOS. J. POPE AND BROTHER, AGENTS,
292, PEARL STREET, NEW YORK.
per Ore, Mattes, or Bullion purchased. Advances made on consignments for refining and sale.
SMELTING AND REFINING WORKS AT BERGEN POINT, near NEW YORK.

OFFICES—292, PEARL STREET, NEW YORK.

J OHN G EAST.
NEWCASTLE-ON-TYNE.
BROKER FOR THE SALE OF PIG-LEAD, LEAD ORES,
COPPER ORE, COBALT, MANGANESE, CARBONATE OF
BARYTES. ESTABLISHED 1866

HENRY NUTT AND CO.,
No 57, BRISTOL ROAD, BIRMINGHAM
PURCHASERS OF
LEAD ASHES, LEAD SLAGS, SULPHATE OF LEAD, TIN
ASHES, TERNE ASHES, AND ALL REFUSE CON-
TAINING TIN AND LEAD.

HENRY WIGGIN AND CO.
(LATE VANS AND ASKIN),
NICKEL AND COBALT REFINERS,
BIRMINGHAM.

S. A. EDWARDS AND CO.,
METAL MERCHANTS AND BROKERS.
SOLE AGENTS FOR THE CELEBRATED SWEDISH STEEL.
BRANDED "SANDVIK."
6, GREAT CHARLES STREET, BIRMINGHAM.

OLD METALS of EVERY DESCRIPTION PURCHASED for CASH.

The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, MARCH 31, 1882.

IRON.	£	s.	d.	IRON.	£	s.	d.	IRON.	£	s.	d.
Pig, GMN, L.o.b., Clyde...	2	8	0	Tin,	£	s.	d.	Tin,	£	s.	d.
" Scotch, all No. 1 ...	2	9	3	English, ingot, f.o.b...110	0	0	112	0	0	112	0
Bars, Welsh, L.o.b., Wales	5	15	0	" bars	..	111	0	0	113	0	0
" in London	6	15	0	" refined	..	113	0	0	114	0	0
" Stafford	7	15	0	Australian	..	107	5	0	107	10	0
" in Tyne or Tees	6	15	0	Banca	nom.						
Swedish, London	9	10	9	Straits	..	107	5	0	107	10	0
Rails, Welsh, at works	5	15	0	COPPER.							
Sheets, Staff., in London	9	0	0	Tough cake and ingot	68	0	0	70	0	0	0
Plates, ship, in London	9	0	0	Best selected	71	0	0	70	0	0	0
Hoops, Staff.,	7	12	6	Sheets and sheathing	78	0	0	77	0	0	0
Nail rods, Staff., in London	7	0	3	Fiat Bottoms	79	0	0	80	0	0	0
STEEL.				Wallaroo	69	0	0	70	0	0	0
English, spring	12	0	0	Burra, or P.C.C.	68	10	0	69	0	0	0
" cast	30	0	45	Other brands	68	0	0	67	0	0	0
Swedish, kug.	15	0	0	Chill bars, g.o.b.	64	7	5	64	10	0	0
" Ing. ham.	15	10	0	PHOSPHOR BRONZE.							
LEAD.				Alloys I., II., III., and IV. ... £125 0							
English, pig, common	14	7	14	VII. and VIII. ... 140 0							
" L.B.	14	0	15	XI. Sp. bearing metal	117 0						
" W.B.	15	0	15	50							
sheet and bar	15	5	0	BRASS.							
pipe	15	15	0	Wire	7½d.						
red	17	10	0	Tubes	9½						
white	21	10	0	Sheets	8						
patent shot	17	10	0	Yel. met. sheath. & sheets	6½d. 6½						
Spanish	14	5	14	TIN-PLATES.	per box.						
NICKEL.				Charcoal, 1st quality	1	1	0	1	2	0	0
Metal, per cwt.	15	0	16	2nd quality	0	18	0	1	2	0	0
Ore, 10 per cent. per ton	20	0	25	Coke, 1st quality	0	18	0	0	19	0	0
QUICKSILVER.				2nd quality	0	16	0	0	17	0	0
Flasks, 75 lbs., war.	5	17	6	Black,	per ton	15	17	0			
Silesian	17	0	17	50	Canada, Staff., or Gla.	12	0	9			
English, Swansea	18	0	0	at Liverpool	12	0	9				
Sheet zinc	21	15	0	Black Taggers, 450 ft.	30	0	0				
				14 x 10							

* At the works, 1s. to 1s. 6d. per box less for ordinary; 10s. per ton less for Canada; IX 6s. per box more than 10 quoted above, and add 6s. for each X. Terne-plates 2s. per box below tin-plates of similar brands.

REMARKS.—There has been an absence of vitality in the demand for most metals, and prices have in consequence at times assumed symptoms of ease. The pronounced quietude in the demand is the only reason that can be assigned for the moderate prices which, for the most part, prevail; but it is difficult to discover the cause of the lifeless condition of the markets. There are many circumstances which ought to stimulate and encourage buying, and while so much exists to give the greatest support to the whole trade, it is not a little surprising that scarcely any buyers step forward to make a start in purchasing. Of course, while they do otherwise prices will doubtless continue to dwindle down, and, therefore, in this way they reap an advantage; but such a course cannot continue for long, and it becomes a question whether it is more advisable to wait until the last moment when pressing requirements will force the effecting of purchases, or make contracts now at the present moderate prices, which generally prevail. There certainly does seem great risk to contend against, where orders are held in abeyance for reduced rates, as at any time an increase in the number of orders may be made, which may have an immediate effect upon prices. There are circumstances which tend to augment regular trade, and also much to induce speculative buying; therefore, when once a rebound takes place it may not only possibly, but even probably, be sharp, leaving many of the hesitating buyers in the lurch, as several similar advances on previous occasions have done; and, with such precedents as these in the recollection of the trade, it is not going too far to anticipate that ere long some of the speculative operators, if not the regular dealers, will speedily effect contracts upon an extensive scale; and when once the buying mania begins it is impossible to foresee how far it may be taken, being backed by cheap money, reduced stocks here and there, low prices, and good agricultural prospects. We do not say the trade is likely to be suddenly converted from its present quietude into a flourishing condition, but sharp fluctuations against buyers may arise sooner than many expect. Consequently it would appear advisable to be at all times on the alert, and in addition to the foregoing events we would draw attention to the present state of the trade. Dull it may be, but nevertheless it is healthy. Languid the demand may appear, but at the same time there are only few complaints of inactivity prevailing at the works. There may not be quite as much briskness as a short time back, but yet the mills, plant, and machinery are fairly well occupied; and, therefore, although comparisons may not be favourable, yet the state of the trade, taken on the whole, is satisfactory, a proof of which is the fact that hardly any failures, either great or small, are reported in the trade from any part of the kingdom. It is, therefore, clear that when once a turn does take place it will not be wanting in support; and, as there is hardly anything to deter buying which could go against and counterbalance the favourable events to which we have made reference, it would not be surprising if a sharp rally be made in prices, and more especially in those which are now low, and are at all likely to meet with attention from speculators.

COPPER.—This market has continued quiet, and only a small amount of business has been doing. Prices are a little lower for Chili bars, but operators show no disposition to make purchases. The demand is at times languid, the quietude occasionally deepening almost into depression. Sellers appear not only willing, but even anxious to realise, while buyers display little or no disposition to relieve them of their stocks; but at the same time, although holders accept slight concessions in order to effect business, yet they will not submit to any great reductions, consequently the market is much neglected, and the business that has been done has been almost entirely of a hand-to-mouth character. The merits of the

market seem to be almost altogether disregarded. Operators are apt to take only a gloomy view of the future, and although ready to acknowledge the many favourable events which could be brought forward in support of any advance that might be made, yet while there is an absence of any life in the market, they either wisely or wrongly conclude that prices will doubtless continue to recede. It is, however, more in the speculative enquiry that there is so great a want of animation, and although prices for manufactured keep easy, it in a great measure, if not principally, arises from sympathy with those for the raw material. It is true that there is no very vast amount of business doing in manufactured, nevertheless several of the works are fairly well filled with orders, and, therefore, there does not appear any great probability of prices receding to any material extent for manufactured unless, of course, any great fall be made in prices for the raw material, which does not seem very likely, as sales will probably not be pressed to any particular extent.

IRON.—There is no very appreciable change in the state of this market; business has not been very brisk and prices, although mostly remaining tolerably steady, have nevertheless displayed an easier tendency for manufactured, while pigs, on the other hand, have been a little firmer. The lower rates for finished iron appear in some measure to have stimulated the enquiry, while some few orders have already been placed. Prices are well worthy the attention of buyers there seems to be little or no risk attending purchases at the present time on that account, and from this cause alone increased specifications may reasonably be anticipated. Welsh and Shropshire qualities are both rather lower in value, but in the North prices are well maintained, and a moderate business is reported to be doing. The tendency of the Scotch pig market has been toward dearer rates, but no very great change has been made in prices. The tone, however, has decidedly improved, occasioned, no doubt, by the continuance of good shipments, a feature in the trade which is very satisfactory. There is also again a further slight reduction in the public stock in Scotland, as seen from the following returns from Glasgow. The market, too, receives great support from the repeated heavy reductions which have been made in the Middleburgh public stock, and as it will be remembered that from week to week during the present month there has been a further decrease effected in the visible stocks, the statistics for March, which, however, are not yet to hand, will prove satisfactory, and will show a very heavy reduction in the stock in the Cleveland districts, probably about 10,000 or 11,000 tons, while a decrease of about 1000 tons may also be looked for in the stock in the Glasgow works.

The Glasgow warrant market has rallied at times during the week, and on Monday, after 47s. 5d. was touched, the price remained steady therewith, while on Tuesday better prices were realised, business being done between 48s. and 48s. 4d. sellers remaining at the close at 48s. 4d. On Wednesday the price further advanced to 48s. 6d., but receded again yesterday to 48s. 1d., rallying slightly towards the close, and business to-day has been done between 48s. 2d. and 48s. 4d., the closing figure being 48s. The shipments last week were again good, being 12,375 tons against 12,262 tons for the same week of last year, or an increase of 113 tons, and which makes the total shipments for the whole of this year 135,170 tons, against 110,888 tons for the same time of last year, and 190,145 tons for the similar period of 1880. There is now one furnace less in blast, making a total of 107, while the public stock has been further reduced by 661 tons, and is now estimated at 629,599 tons against 630,280 tons last week. The imports of Middlesborough pig-iron into Grangemouth last week were 4095 tons, against 6645 tons for the same week of last year, or a decrease of 2550 tons, and which leaves a total increase for the whole of this year compared with last of 4670 tons. The Cleveland market is reported more cheerful, and prices are firmer, perhaps owing to the heavy shipments as much as anything, those for the present month being estimated at about 90,000 tons, and also to the continued heavy decrease which is being made in stocks. Messrs. Connal and Co.'s stock shows a decrease of 4630 tons, now amounting to only 160,773 tons. Makers have not made any change in their quotations of 48s. 6d. for No. 3, but remain firm therewith, while second-hand lots are offering at about 6d. less. There is no alteration at all round. Ship-plates are quoted at 7s. 5s., but some parcels have been offering at rather less, while bars and angles are quoted at 6s. 12s. 6d. per ton.

The Wolverhampton market is said to be inanimate, there is a lull in buying, and sales in some cases have been rather pressed. In some sorts of pigs slight reductions have been made in prices; others, however, are somewhat firmer. Staveley pigs are offering at 50s., but Stanton are quoted at 52s. 6d. There is but little business doing in manufactured, and although marked bars remain firm, yet unbranded qualities are quoted lower by 1s. 5d. to 2s. 6d., and sheets and plates are procurable from 2s. 6d. to 5s. lower. The trade at Birmingham is also said to be quiet, and in order to make business practicable sellers in some instances declare their willingness to meet buyers in price by making some slight concessions. Buyers, however, do not appear very ready to pay even the reduced rates, consequently the business that has been doing has been particularly limited, and merely to meet the wants of the day. Trade at Sheffield is said to remain brisk, especially for railway material and plates. Pigs are in fairly active request, and prices are tolerably steady. Derbyshire and Lincolnshire qualities are quoted at 45s. 6d. to 48s. 6d. The hoop makers are fairly well off for work, some large orders having been placed. There is scarcely any alteration in the trade in Wales, which remains steady both as regards the demand and price. The American market is reported steadier, and prices slightly higher for some kinds of iron. Cleveland and American pigs are said to be 5½d. dearer, but scrap and old rails are slightly lower, being quoted at 830 50 c. With regard to Scotch pigs Coltness is quoted 2s. lower, and is now offering at 825. Other brands show no variation, Garlieston ruling at 2550 c., Glengarnock at 81 less, and Eglington rules at 823 50 c. Hematites are quoted at 824 50 c., and Cleveland at 822.

TIN.—During the past week there has not been any great amount of activity in the demand for this metal, and prices have tended in favour of buyers. Sales have been pressed rather more freely than for some time past, and notwithstanding the reduced rates, business is not stimulated to any important extent. The quietude in the demand for consumption proves a great weakness in the market; it tends in some degree to discourage holders, it checks speculative operators from entering largely into contracts, and induces sellers to realise more freely than they doubtless otherwise would. Prior to this week holders were able to maintain the market with a tolerable amount of ease, but now finding buyers do not come forward they have concluded it to be more prudent to accept the best rates obtainable, which are still high when compared with what have been ruling during the past few years, nevertheless it is hardly likely that the downward tendency is likely to continue for long without some considerable effort being put forward not only to arrest the retrogressive tendency, but also to cause a rebound in prices.

SPELTER.—The market is slower, and the prices are to-day 17s. 10d. 5s. for ordinary, and 17s. 10s. to 17s. 15s. for special brands.

LEAD steady at 14s. 5s. to 14s. 7s. 6d. for Spanish, and 14s. 7s. 6d. to 14s. 12s. 6d. for English.

STEEL is rather inactive, but prices show but little variation.

TIN-PLATES.—There is not much doing, and quotations remain nominally unchanged.

QUICKSILVER.—Firm market, but demand less active.

The MINING SHARE MARKET has been very quiet this week, and the dealers again occupied with the settlement of the fortnightly account. Notwithstanding the abundance and cheapness of money, there is very little speculation going on, and investors hold aloof when they see quotations giving way almost daily through glutted markets; and, in order to give new life to business, one or two good discoveries—rather rare things of late—are required. The mines dealt

TO INVESTORS.

THE
RICO SILVER MINING COMPANY
OF COLORADO

Has made substantial progress during the past year. It is engaged in a plain, carefully-managed, business-like Mining Enterprise, affording the opportunity for really immense dividends.

The shares already issued are held principally in London, Manchester, and Chicago.

I shall be very pleased to send this year's prospectus of the company, upon receipt of request therefore.

J. J. WEST, President.

245, Wabash Avenue, Chicago, U.S.

Notices to Correspondents

* * Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt; it then forms an accumulating useful work of reference.

GOOD FRIDAY—Mine agents and other correspondents will oblige by sending their reports and correspondence a day earlier next week, in order that they may not be delayed or omitted through the occurrence of Good Friday.

MONT ALBO MINING COMPANY.—Can any correspondent give any particulars concerning this company, in which I had shares allotted to me in May, 1870. The following year it was said that the concern would be thrown into Chancery, and I have heard nothing of it since.—A. M.

WIRE TRAMWAYS.—Can any correspondent give the names of two or three wire tramway makers, either in England or on the Continent. The tramway is to be used for carrying ore from copper mines to smelting works, and it is conveyed in the air.—P. U. G.

CHILE GOLD.—“R. F. G.” (Bonnech).—The number of shares was stated in the prospectus. When purchasers buy first, enquire afterwards, the result is usually disappointing.

KILLIFRETH.—“O. S.” (Bristol).—The notice being a share-jobbing advertisement can only appear in the advertisement columns.

Received,—“C. M.” (Guernsey); “J. H. B.” (Boston); “J. M. C.”—“Pro Bono Publico” (Oregon Gold); “J. R.” (Mineral Riches of Siberia); Next week—“E. R. W.”—“Subscriber” (Denver); “H. M. C.” (Colorado); “Old Reader” (Richmond); “T. W.”—Our Correspondent's letter from Kimberley (March 2) will appear in next week's Journal.

THE MINING JOURNAL,
Railway and Commercial Gazette.

LONDON, APRIL 1, 1882.

THE MANUFACTURE OF BESSEMER STEEL.

THE ERIMUS WORKS.

The returns for the last year show that the greatest increase in the production of Bessemer ingots and rails took place in the Cleveland district, which promises before long to take the leading position in the kingdom as regards the make of steel by the Bessemer process. Up to a few months since the largest converters in use were those at the works of Sir J. BROWN and Co. (Limited), in Sheffield, and these were 10 tons each, but now Bolckow, Vaughan, and Co. have introduced two of the great capacity of 15 tons each. Mild steel of almost any quality can now be produced in the Bessemer converter, and it is fast displacing iron for many purposes, including shipbuilding, for not only is there more storage room in a steam vessel built of steel than one of iron, but there is also the further advantage of drawing from 4 to 5 ft. less water. Dr. SIEMENS holds that for purposes where boldness and grandeur of outline are essential no material can rival steel. If the object is simply to get tensile strength, as is the case in the chains of a suspension bridge, the use of steel wire enables us to attain a limit of strength exceeding 100 tons per square inch, or as much as five times the tensile strength of wrought iron. Steel is now made of such toughness that if a bar 8 in. in length is subjected to increasing strains it will stretch to 10 in. before giving way. The Bessemer process, however, has undergone considerable modifications since it was first brought out, still the direct chemical action of the atmospheric air on the metal in its fused state is the means by which the pig is converted into steel. By this process the percentage of sulphur is not greatly reduced, whilst the carbon and silicon are nearly burnt out in course of conversion. The Cumberland hematite is particularly well adapted for steel making, as it does not contain much phosphorous or sulphur. In the early part of the work Mr. BESSEMER tried to force air or steam into the molten pig-iron until the mass had obtained the malleability, as well as the properties of steel. To accomplish this the blast was sent from the top of the converter by passing a tube towards the bottom of the vessel. But now another and better means has been adopted, for the blast is introduced by a number of tuyeres through the bottom of the converter, the air passing upwards through the molten metal.

The converter itself is a large circular iron vessel constructed of iron plates riveted together, and lined inside with from 10 to 12 in. of a highly refractory material. The top of the converter is circular, with a mouth inclining over at an angle of about 30° to the body of the vessel, so that the flame and sparks are sent in an opposite direction to where the workmen are stationed, as well as from the casting pit, the position of the mouth also preventing the charge of molten metal from being blown out. When the converter is swung into a horizontal position the molten iron can be run in without touching the holes with which each of the tuyeres is perforated, and when the requisite quantity has been produced the air blast is turned on, and the vessel is swung into a vertical position. The flame at the mouth of the converter shows the progress of the operation, for, first of all, only a small amount of flame appears, whilst myriads of sparks are showered out; then masses of slag are sent out, thus showing that the silicon is being oxidised. The flame gradually decreases as the combustion of the carbon proceeds, until a vast white flame, apparently pure, roars up the chimney, against which the mouth of the converter is directed. The flame continues in full force until such time as the carbon exhausts and then gradually decreases, when the vessel is turned back into a horizontal position, when a certain quantity of speigleisen, separately melted in an adjoining cupola, is run into it. The admixture being thoroughly made in the converter by blowing through it for a few seconds, the metal is then ready for being ladled into moulds, the great heat remaining to keep the metal sufficiently fluid for the purpose.

The Erimus Works, in the Middlesborough district, is now taking a high position in the manufacture of steel rails and other material, there being a fine plant of the best construction, whilst there is the advantage of proximity to a good shipping port. The works were first laid out for the purpose of carrying on the Dank process, which a few years ago caused such interest amongst iron-masters. In some instances it done well, and in others just the reverse. The quality of iron turned out by the rotary puddler was found to be much superior to that turned out by the ordinary mode of puddling, and there was very little variation. The puddler appeared to be particularly well adapted for the rolling of plates, but the fact that iron rails have not been thought of for the last two or three years, put the Dank process on one side at the Erimus Works, and a steel plant took its place, and this we believe has some specialities worth noticing. There are two converters with wrought-iron shells 8 ft. in diameter outside, and $\frac{1}{2}$ in. thick, the length from the centre of the trunnion to the top of the nose 8 feet 8 in., and to the bottom, exclusive of the blast box, 5 ft. 10 in.

The shells are carried by a strong cast-iron belt 3 ft. deep, a portion of which is used for the conveying of the blast, whilst the trunnions are 19 in. in diameter, and are cast on the belts, which are made in segments and fitted to the converter between strong angle-iron rings, so that it can be removed without damaging the shell of the converter, to which there is a cast-iron hood fixed on the back above the belt to form a tapping hole, so that should any phosphorus be taken up from the slag when poured in the ordinary way it can at once be tapped out. There is a hydraulic lift with a ram 14 in. in diameter, with a 21½ ft. stroke, the table being sufficiently strong for a locomotive to run over it, and the lift is worked by an ordinary slide valve, levers being placed both on the platform and the floor level, with a knock off arrangement at the bottom and top of the stroke. Speigleisen plays an important part in the production of steel, which we believe was introduced by Mr. MUSHET, who, finding it not easy to determine when the action of the air should be stopped, so that the quality of the steel was irregular, had the action of the air carried on until the carbon was completely removed, and then added sufficient carbon and manganese by means of molten speigleisen (an alloy of iron and manganese containing about 5 per cent. of carbon).

At the Erimus Works the spiegel cupolas are 4 ft. 4 in. in diameter inside the shell, and are placed on the platform one on each side of the lift, and the spiegel itself when required is run into small ladles, and is weighed when in the act of running from the cupolas by a patent machine suspended to the jib. The tipping gear is carried on brackets attached to the outer standards, which carry the converters, and consist of movable hydraulic cylinders, on which are fixed cast steel racks working on steel pinions keyed on the trunnions. The piston rods are of Siemens' steel, bored out so as to conduct the pressure to each side of the pistons, the outer ends of the rods being secured to the standards, and the cylinders have sufficient traverse to turn the converters three-fourths of a revolution. Hand cranes are fixed on each side of the platform for lifting the blast box covers, and jack rams are provided for charging the bottoms. The whole of the appliances are specially well adapted for the converting process being carried out in the best and most economical manner, so far as labour is concerned at least. The engines are also all that can be desired, the steam cylinders of the hydraulic engines being 18 in. diameter and 30 in. stroke, the piston rods passing through the backs of the cylinders to work the double action pumps, which are placed directly behind them. The vertical compound blowing engines have steam cylinders 42 in. and 78 in. diameter, with air cylinders 54 in. diameter and 5 ft. stroke. The blast for the cupola is obtained from several of Root's blowers, and there are eight boilers for supplying the steam for the Bessemer machinery. The quality of the steel produced at the works cannot be excelled, being most uniform in character, and of course particularly well adapted for rolling into rails. Seeing that the North of England, from its favourable geographical position with shipping ports close at hand, must absorb a large portion of the steel rail trade of this country, there is no doubt but that the Erimus Company will have a fair share of it, and in so doing will maintain the superiority of English rail manufacturers.

THE COPPER TRADE.

During the quarter ending March 31, 1882, the quantity of copper ore, the produce of Cornwall and Devonshire, sold at the Cornish Ticketing, was 10,005 tons, which contained 595 tons 8 cwt. of fine copper, and realised 32,660/- 17s. 0d., being equal to an average of 37. 5s. 4d. per ton of ore, and 54. 16s. 4d. per ton of copper in the ore. During the same period the British, colonial, and foreign ores sold at Swansea amounted to 970 tons, which contained 91 tons 19 cwt. of fine copper, and realised 5876/- 5s., being equal to an average of 67. 1s. 2d. per ton of ore, and 64. 1 per ton of copper in the ore. The average produce of the ore sold at Cornwall Ticketings was 6 per cent., whilst that sold at Swansea gave an average produce of 9½ per cent. From this it will be seen that the aggregate sales by ticket were 10,975 tons of ore, containing 687 tons 7 cwt. of fine copper, realising 38,537. 2s. The subjoined is a summary of the periodical sales at the Cornwall and Swansea Ticketings respectively. The ores sold at the Cornwall Ticketings were—

Date.	Standard.	Prod.	Price.	Per unit.	Tons.	Fine cop.	Amount.
Jan. 5...	105 19	0...	5½...	£3 5	0...	11s. 5¼d.	961 ... 54. 70s. £3,114 17 0
19...	102	6	0...	6½...	3 13	6...	11 226 ... 140 1 ... 6,194 8 6
Feb. 2...	95	19	0...	7...	3 19	6...	11 2 915 ... 64 4 ... 3,641 19 6
23...	101	12	0...	5½...	2 17	0...	10 4 2,570 ... 146 17 ... 7,577 10 6
Mar. 2...	99	18	0...	5½...	2 18	0...	19 3 856 ... 48 11 ... 2,485 18 6
23...	100	4	0...	6...	3 4	6...	10 10 2,372 ... 141 8 ... 7,546 16 6
Total for the quarter							
							10,065 ... 595 8 ... 32,660 17 0
Quarter ending December, 1881							
							10,212 ... 659 3 ... 36,745 11 6
Quarter ending September 1881							
							9,846 ... 679 8 ... 34,499 17 0
Quarter ending June, 1881							
							9,455 ... 602 15 ... 29,798 16 0
Total for the year 1881							
							39,518 ... 2,536 14 ... £133,704 6 6
Showing a quarterly average of							
							9,879 ... 634 3 ... 33,426 17 0
Corresponding quarter, March, 1881							
							9,870 ... 641 16 ... 35,089 19 0

The ores sold at the Swansea Ticketings were—

Date.	Standard.	Prod.	Price.	Per unit.	Tons.	Fine cop.	Amount.
Jan. 17...	£88 8 5...	9½...	£6 1 2...	12s. 9¾d.	970 ... 91 19c.	£5,876 5 0	
Total for the quarter							
							970 ... 91 19 ... £5,876 5 0
Quarter ending December, 1881							
							2,012 ... 225 6 ... 14,055 6 6
Quarter ending September, 1881							
							5,345 ... 440 2 ... 18,768 9 0
Quarter ending June, 1881							
							6,641 ... 552 16 ... 31,903 12 0
Total for the year 1881							
							14,988 ... 1,320 3 ... £75,055 15 6
Showing a quarterly average of							
							3,742 ... 330 1 ... 26,329 19 0
Corresponding quarter, March, 1881							

THE MECHANICAL VENTILATION OF MINES.

Just now the question as to the best system of ventilating our mines is being freely discussed in several districts, and the subject is one that certainly cannot receive too much attention. One of the difficulties, however, that has to be encountered with respect to the various mechanical appliances that have been invented for ventilating mines is the actual amount of useful effect that is obtained from them, for the figures given by some persons who had watched carefully the work done by certain fans, for instance, did not agree with that of others who were equally desirous of coming to an accurate conclusion. So far as regards fans, the Waddle, the Guibal, Byram, Brunton, and Schiele had all done good work, as have some of the revolving wheels, such as Cooke's and Lemielle's. The subject was rather exhaustively noticed by Mr. PERCY a few days ago near Wigan, but he gave no preference for one system over another. In the North of England the different modes of ventilating mines have been frequently discussed, resulting in considerable divergence of opinion amongst the ablest mining engineers as to the actual effect obtained, and this undoubtedly is the really important point that has to be mastered, if such is possible. A good deal has been said in favour of revolving wheels, more especially Cook's, which sweeps out a certain quantity of air at every revolution; but the balance of opinion appears to be in favour of fans working on the centrifugal principle. The Guibal and the Waddle fans could be made any size up to 50 ft. diameter, whilst the equally well-known Schiele fan was a small one, seldom exceeding 15 or 16 ft. in diameter. The Guibal and Waddle worked somewhat slowly, the engine being connected direct, whilst the Schiele worked quickly, power being communicated from a large pulley on the engine-shaft by means of a strap to a small pulley on the fan shaft. Both these fans have given satisfactory results, the Schiele (the smallest) having given as much as 250,000 cubic feet of air per minute when required. For Cook's ventilator it is claimed that under certain conditions 250,000 cubic feet of air can be obtained with one having a drum 20 ft. in diameter by 20 ft. long in round numbers at any reasonable water gauge.

Mr. MORRISON, who we believe is interested in the Guibal fan, stated at a meeting of the North of England Engineers, that the fan alluded to had been put up at places where neither the Cooke, Lemielle, nor any other displacement machine, as at present constructed, would be of the slightest service, and that he was certain that were an investigation made by a committee or by independent persons, and the first cost and duty taken into account, the result would be found to be largely in favour of the centrifugal system.

Then as to the difference in measuring the useful effect of different machines, it was stated that a gentleman of experience ascribed to

majority of instances, have prevented the fatality. The evidence adduced at the coroner's enquiries have over and over again shown that an abundance of timber was within the reach of the collier, but with a recklessness which seems inherent in his calling he neglected to avail himself of the means of safety at his disposal, and thus paid the inevitable but too dearly purchased penalty. When will colliers learn practical lessons and personally endeavour to minimise the risks associated with their dangerous avocation? The reports of the various inspectors now under review show that the number of deaths during the past year is precisely the average for the past eight years, and having regard to the greatly increased quantity of coal raised during the past year, the returns are so far satisfactory. We are sure, however, all engaged in the vastly important yet dangerous avocation of mining will still endeavour to render the calling of the collier as free as possible from all risks of accident, and that no mere mercenary consideration will induce even a desire to escape from his just responsibilities.

IMPROVED EXPLOSIVE COMPOUND.

To provide chiefly for employment in blasting operations, a high explosive, the ingredients of which can be separately manufactured, handled, and transported, and can be mechanically united when required for use by the consumer, whereby the danger usually attending the manufacture, handling, and transportation of ordinary high explosives is avoided, is the object of the invention of Mr. S. R. DIVINE, of Loch Sheldrake, New York. He proposes an explosive compound composed of two ingredients, the one a solid, such as crushed or powdered chlorate of potash, and the other a liquid, such as nitrate of benzole, which are combined to form a high explosive by merely causing the mass of the solid ingredient to absorb the liquid ingredient, a combination which can be effected by the consumer at the time when and at the place where the explosive is to be used. These ingredients being in themselves incapable of being exploded by percussion, can be with safety separately manufactured, handled, and transported to the consumer, who will have no difficulty in effecting their combination, because the operation of combining them is of so simple a character. Either perchlorate or permanganate of potash may be used as the solid ingredient of his improved explosive, and other liquid nitro-compounds may be substituted for the nitro-benzole, the essential condition being observed that the liquid ingredient substituted shall possess a degree of fluidity which shall adapt it to be readily absorbed by the solid ingredient, so that the final act of preparing the explosive for use may be performed by merely bringing the two ingredients into juxtaposition, and allowing the liquid ingredient to be absorbed by the solid ingredient.

In manufacturing the nitro-benzole he uses the naphtha of commerce, and it will therefore be understood that such nitro-benzole contains some nitro-toluol and picric acid. Four and one sixth parts of chlorate of potash to one part of nitro-benzole are considered to constitute the theoretical proportions in which the ingredients of the compound combine most effectively; but in order to somewhat diminish the sensitiveness of the compound to ignition by percussion, he prefers to use three to not exceeding four parts of chlorate of potash to one part of nitro-benzole. It will be understood that the ingredients of the improved explosive may, if desired, be mixed in measured proportions and in any convenient vessel. Owing to the viscous condition assumed by this explosive compound when the ingredients are united, it is not liable to be accidentally exploded by tampering in the act of charging the drill hole, and in this respect possesses an important advantage, greatly contributing to safety in its employment.

The same gentleman has also patented an invention the object of which is to facilitate the use of high explosives in blasting operations. To this end he employs a blasting compound composed of two in-explosive ingredients, the one a solid and the other a liquid, the solid being capable of absorbing the liquid, and the result of such absorption being the conversion of the two ingredients of the compound into a high explosive. He constructs cartridge shells or envelopes preferably of muslin, cloth, paper, or other porous material, and of the shapes and sizes of ordinary blasting cartridges, and he fills such shells with the solid ingredient of the explosive, and provides the liquid ingredient in a separate vessel suitable for transportation, so that finally when the cartridge is required for use the consumer effects the necessary combination of the ingredients by causing the solid ingredient to absorb the liquid ingredient either by immersing the cartridge shell in the liquid ingredient, or by opening one end of the cartridge, and slowly pouring the liquid ingredient upon the solid ingredient contained in the cartridge shell.

It will thus be seen that the improved cartridge shell is prepared for transportation by being charged with a solid ingredient, which by reason of its not being explosive can be safely handled and transported, the completion of the charge being effected by the consumer at the time when the cartridge is required for use, such completion consisting merely in the addition of the required quantity of the liquid ingredient to the said solid ingredient. By means of the porous cartridge envelope the relative proportions of the ingredients of the compound may be conveniently fixed with suitable accuracy by first allowing the solid ingredient to become fully saturated with the liquid ingredient and then squeezing or wringing out the cartridge by hand. As soon as the ingredients are mechanically united by the absorption of the liquid ingredient by the solid ingredient in the desired proportions, the cartridge is ready for use, and may if desired be once inserted in the drill hole and exploded by percussion. As nitro-benzole is not miscible with water, the solid ingredient and the porous cartridge envelope by the absorption of nitro-benzole become water repellent, and the cartridge is thus especially adapted for blasting in water.

THE COMSTOCK INUNDATION.

Referring to the source of the Gold Hill waterflow, the Virginia (Nevada) Chronicle states that on Feb. 12 the north drift on the 2800 level of the Exchequer (Nevada) Mine encountered a large body of hot water. The waterflow, in excess of the water which was then being pumped from the mine, has been variously estimated as being from 100 to 120 miner's inches in volume. Taking the latter figures as more nearly correct, the flow is equal to 1500 gallons a minute, or 90,000 an hour—no insignificant stream in itself. This water has since shown no abatement, and has so far exceeded the capacity of the pump in that locality that it has risen in the Jacket shaft to a present point between 2500 and 2600 levels, and has flowed from the Yellow Jacket to the 2560 level of the Belcher, and thence to the 2275 level of the Overman, suspending prospecting operations in the Exchequer, Alpha, Con, Imperial, Yellow Jacket, Belcher, Crown Point, and Overman Mines. Notwithstanding Jacket's considerable pumping capacity (100 miner's inches for 24 hours), the water has gained steadily, although it is now believed that it will soon be under control. When the body of water was first struck in Exchequer nine days ago it was suggested that, inadvertently, the west wall had been cut, either with a diamond drill hole or by the drift. Subsequent enquiries, however, revealed the fact that no drill hole or drift in the Exchequer had been run within 200 ft. of the west wall. It has been further ascertained that a large body of quartz was encountered lying to the east of the regular footwall in an almost vertical position, and probably rising several hundred feet above the 2800 level. Its existence in the Bullion and adjacent mines has long been suspected, and the fear of water alone has prevented prospecting along its supposed direction. The action of the water in the Yellow Jacket Mine indicates that the bottom, or at least the lower portion of this quartz body, has been encountered.

Ore bodies on the Comstock have mostly occurred in such outlying branch fissures. Many will remember the flow encountered in sinking the Consolidated Virginia shaft, which flooded the Latrobe tunnel for months. It is also fresh in the memory of Comstock miners that bodies of water were struck while developing the 1300, 1400, and 1500 levels of the Consolidated Virginia and California Mines. It is a fact beyond dispute that with depth the Comstock ore bodies have increased in size and richness as their occurrence has been less frequent. From the surface to the 1000 level 11 bodies of ore

were encountered, yielding a net profit of \$22,000,000. From the 1000 level to the 2000 level three bodies of ore were found, yielding about \$100,000,000 net profit. With the increased size and richness of ore bodies an increase must also exist in the generative medium. Water being the medium acknowledged to have formed ore, its increased quantity must point to an increased size of ore bodies. It is possible that only one ore body will be found between the 2000 and 3000 levels of paying qualities, and it is quite possible that its first appearance has been indicated by encountering such an immense body of water in the north part of the Exchequer Mine. The water encountered on the 2800 level will relieve the upper portion of the branch fissure, and that part above, after the water has found its level, will be dry. To demonstrate the existence of ore at this point a drift might be run from the lower levels of the Bullion Mine east to intersect this fissure, the lower workings of the Bullion not being flooded, and having no connection with any of the mines before mentioned. In the event of ore being encountered a consolidation of the other mines could easily be effected for the purpose of draining the lower levels of the jacket through the Bullion's new shaft, by placing in that shaft pumps capable of handling this flow of water.

PRACTICAL GOLD MINING, AND ITS MANAGEMENT.

BY THOMAS CORNISH, M.E. (late of Australia).
Author of "Gold Mining: its Results and its Requirements;" "Our Gold Supply; its Effect on Finance, Trade, Commerce, and Industries," &c.

There is probably no industry that excites the speculative faculties of all classes as that which gold mining has done, and is still likely to do. In the earliest days of its discovery in California and Australia the news that gold could be washed from the surface soil or within a few feet of it, oftentimes in such quantities that men's fortunes (or piles) were made in a few weeks or months, led many thousands of energetic spirits of all nations to tempt fortune in searching for it. The most adventurous spirits found ample opportunity for expending their energies in the hazardous occupation of gold mining, whether as pioneers in the discovery and prospecting for new fields or in developing the established gold fields. The wild and visionary hopes of many of those who rushed off in haste to try their luck at gold digging were doomed to disappointment, and it was by the determined energy of those who were not to be daunted by a few failures or the loss of months and sometimes years of labour that succeeded in unearthing the enormous quantity of gold which has been distributed throughout the channels of trade and commerce during the last 30 years.

Gold mining is an industry, trade, or profession, the practical details of which can only be acquired by intelligent application and actual working and observation. Theoretical views, or the cursory glance of a gold field, or the inspection of one or two mines is not enough to qualify a man as an authority on gold mining; and it is a subject which is difficult to convey a correct idea of to the uninitiated, as there are so many incidents and phases which may be surprised, but cannot be proved except by actual development. There is no other industry in which money, time, and labour can be so quickly and irretrievably wasted as in that of gold mining, or in which it is found so many are ready to assume a knowledge of and profess to be authorities upon with little justification.

Since my arrival in London from Australia several millions of money have been subscribed for investment in gold mining companies established for the avowed object of gold mining in India and other places; but from the reports of the operations of many of these companies there appears to be but a small proportion of the capital spent in actual mining operations in developing the resources of the various properties; and, considering the excessive sums of money paid for the privilege of prospecting for gold (in most cases) on other people's property, and the extravagance in costs of organisation and management, there is, I fear, but little chance in many instances of the shareholders reaping any benefit.

The subject of mining management is one that can best be learnt by dearly bought experience, and the Australian gold fields have probably afforded the best opportunity for acquiring it, and those who have graduated through the various phases of practical gold mining on those gold fields, especially in Ballarat, should be and undoubtedly are possessed of an experience not easily acquired elsewhere. On this celebrated gold field there were from the earliest days till now many difficulties to overcome, and which were encountered with a determination on the part of the Ballarat miners unequalled in any other part of the world. A short description of the rise and progress of gold mining in Ballarat, where I resided for many years, and as one who took an active part in developing its resources, it may not be uninteresting to give some account of the process of the development of practical mining and its management on that celebrated gold field, and which will probably best convey to many of your readers the various phases of mining adventure.

The golden city of Ballarat has obtained a world-wide reputation, not only for the enormous production of gold within the district, but for the determined energy of its mining and business population in overcoming difficulties in mining undertakings not met with at that time in any other places. Gold was first discovered here in September, 1851, by Messrs. Hiscock and Esmond, whose prior experience in California led them to explore the quartz ranges near Ballarat, now known as the Golden Point and White Horse ranges, which resulted in their discovering alluvial gold in a gully, ever since named after Mr. Hiscock. The news of this discovery having been made known in Geelong and Melbourne soon caused a rush of enterprising gold seekers from those towns to follow the example set by those two pioneers, and the hills and gullies around Ballarat soon became alive with a population of enthusiastic explorers searching for gold, armed with appliances only of the most crude description for obtaining the precious metal. As parties of men arrived on the New Eldorado they set to work in various places as their fancy dictated, and the first rich and may be said almost fabulous discoveries were found on the famous Golden Point, and which soon became the great centre of attraction. From thence soon radiated a series of rich discoveries in the gullies and on the ranges for several miles round, including the famed Black Hill, Eureka, Canadian, Prince Regent, and many other localities that attracted a population fast and furious. The talismanic effect of the news of the gold discoveries in Victoria and New South Wales soon spread to England and other parts of the world, with the result of a speedy increase of population of eager gold seekers, such as was never seen before and probably will never be witnessed again, and the continued success of the early pioneers in gold digging laid the foundation of the enormous increase of population and the rapid development of the resources of these wonderful colonies.

[To be continued.]

WET EXTRACTION OF LEAD, SILVER, COPPER, NICKEL, AND COBALT.

The wet extraction of silver, lead, copper, nickel, and cobalt from their ores offers many difficulties, especially in presence of arsenic and antimony; the process, however, invented by Mr. ALEXIS DROUIN, of Paris, not only allows the extraction of these metals, but produces them in a state of great purity and separates them when they or several of them are contained in the same ore. The invention may also be applied for extracting these metals from the residues of the mechanical treatment of lead ores. These residues, consisting of a fine powder, are too poor for being used in foundries, and they cannot be mechanically enriched without losing a considerable portion of their metallic contents. It will, therefore, be readily understood that an economical process for utilising these residues, by extracting the metals they contain, must be of the utmost importance for the working of mines. The new process consists in binding with chlorine, and at a low temperature, the metals contained in the ores and the mattes. When the ore contains lead it is treated hot with a solution of sea-salt and an acid in proportions varying according to the case. This operation is performed in wooden vessels provided with a double bottom, serving as a filter, on which the powdered ores are placed about 40 to 50 centimetres high, and then the dissolving liquid is let through a leaden pipe, having previously been prepared in a reser-

voir placed on a higher level than the above vessel. When the treatment is to be effected at a high temperature the mixture of ore and liquid is heated by steam to a temperature of about 80° or 90° (centigrade) by means of special heating arrangements. When the ore contains neither lead nor silver the metals are extracted without the application of heat, and the arrangement of the vessels is very much simplified. The treatment of the ores and mattes by this new process consists of five distinct operations, which will be described seriatim.

The ores and mattes may be ground by any known apparatus so as to reduce them into fine powder. The ores must be roasted in certain cases if they contain copper, nickel, or cobalt, but always at a low temperature and in a strongly oxydising atmosphere. For the extraction of lead roasting is never needed, and thereby volatilisation completely avoided. The next operation consists in dissolving and fixing the metals. The composition of the liquid for fixing the metals by chlorine and for the dissolution of the formed chlorides depends on the nature of the ores. Generally the liquid contains 20 to 25 per cent. of salt, and 1 to 10 per cent. of acid. The dissolving liquids may be used again after precipitation. The precipitation of the metals may be effected cold or hot, according to the nature of the metals. The dissolution of lead must be effected hot, after which it will suffice to cool the liquid down, the silver having been previously removed. The chloride of lead produces small white crystals, which may be easily gathered. Copper is precipitated after cooling by means of metallic iron. If the ore contains nickel or cobalt he submits the solution, after removing the copper therefrom, to a current of chlorine for peroxysing the metal-salts; then he precipitates the iron by carbonate of lime. The nickel and cobalt are precipitated from the filtered liquid in the state of oxydes by lime water, and then separated by one of the known processes. The use of chlorine for precipitating copper, nickel, and cobalt may be dispensed with by using an alkaline sulphide. The iron is removed very readily by submitting this mixture of sulphides to the action of hydrochloric acid diluted with much water, whereby chloride of iron is formed, which may be used like chloride of sodium for dissolving metals under the conditions above mentioned. The sulphides of nickel and cobalt are then roasted for obtaining pure oxydes by driving the sulphur out. The precipitated metals must be washed very rapidly and with an abundance of water for removing the salts they may contain; then the metals are dried cold for avoiding oxydation; a hydraulic press or drying apparatus may be used. Silver is cast in crucibles, the other metals in a reverberatory furnace. The chloride of lead thus obtained generally contains 73 to 75 per cent. of metallic lead. It may be used in this state for manufacturing oxydes or salts of lead; or the metal may be extracted by casting with coal and carbonate of lime. For preparing the dissolving bath hydrochloric acid or sulphuric acid may be used with the same results. The advantages of this process are very numerous. Besides the perfect purity of the products the amount of acid consumed is never greater than the amount corresponding to the law of chemical equivalents. Moreover the dissolving liquid can be used many times, and therefore the cost of extraction is very small.

THE YORKE PENINSULA COPPER MINES—SOUTH AUSTRALIA.—BY A VISITOR.

The Kurilla Mine, the property of an English company, is situated about two miles south of Kadina, and adjoins the Wallaroo sections. It is evident that ore-dressing by means of machinery has not been extensively resorted to here in the past, for on the surface, a short distance from the shafts, lie large quantities of the poorer vein-stone, which have been put aside, awaiting the appliances necessary for the effective treatment of these low-class ores. The ore obtained here is similar to that found in the Wallaroo Mines, and the country met with in working the lodes is much the same. In parts of the mine I saw some really good ore being turned out, especially in one level, where the lode gave excellent returns. The first discovery of ore in this mine was made about 20 years ago. In 1874 the proprietors, the Yorke Peninsula Mining Company, raised in England about \$8000, intending to expend it in trying that portion of the property lying to the westward of Hall's engine-shaft—the main shaft of the mine—about 60 fms. from which a new engine shaft was commenced. This shaft (Grainger's) was intended to be the central point of the future works, but a discovery of green ore 130 fms. east of Hall's shaft, and the almost simultaneous discovery of ore 30 fms. north of the first find, changed the plan of operations, the work in the western part of the mine ceasing with the sinking of Grainger's shaft to the 25, and attention being directed to the eastern ground, which has been worked ever since. Two distinct lodes, each having a parallel vein or loop, are now being explored—the Kurilla lode, with its south branch, and Morphett's lode, with its north branch. The direction of the lode is practically east and west, but subject to occasional bends both north and south. Morphett's lode (named after Sir John Morphett, one of the colonial committees of inspection of the Yorke Company), of which the green ore discovered in the year 1874 was the surface outcrop, lies about 35 fms. north of the Kurilla lode. The parallel veins of both lodes are being worked by cross drivages from the main workings. On the Kurilla lode is Hall's engine-shaft, at the time of my visit 67 fms. deep, and the 15, 25, 35, 45, 55, and 67 fms. levels driven east and west from it, the greater part of the driving being eastward. At the 55 a cross-cut has been driven from the Kurilla lode to Morphett's lode, and levels driven east and west of the cross-cut. A connection has been made between this cross-cut and Morphett's upper levels by a winze from the 43, through which the water is conveyed to Hall's shaft and pumped to the surface. This arrangement allows the entire drainage of the mine to be done by one engine, leaving the engine on Morphett's lode free to do the hauling. The lode lying between the 55 drive east and west of the cross-cut and the 43 is being stopped away, the stopes yielding good ore. The 55 is still being driven east and west, a good lode being met with in the eastern level, but not so good in the western. The north branch or vein of this lode, as previously mentioned, has been tapped by cross-cuts, and a good deal of driving has been done eastward at the shallow levels, but only just touched at the 43 and 55 fm. levels. When the Devon Consols Mining Company was wound up about two years ago the proprietors of the Kurilla Mine purchased the southern portion of the sections held by the late company, which join the original Kurilla sections on the east. On them and about 80 fms. east of the boundary line the Devon Company put down an engine-shaft in a line with the Kurilla lode to the 20 fm. level, and did some driving east and west of it at the 10 and 20. Communication is now opened up between the Kurilla workings and those at the 10 and 15 fm. levels, in the new sections, thus draining the Devon shafts to the 15. The 25 fm. level is already driven some fathoms across the boundary line, and is being pushed on towards the Devon workings, as are also the 35, 45, and 55 on the Kurilla lode, and the 55 on Morphett's lode. On the surface the company have since resuming in 1874 erected a good deal of machinery, including the engine on Morphett's lode for pumping and hauling, the crusher engine and crusher, jiggling machinery and engine to drive it, air compressing engine for driving boring machinery, an engine driving a lathe, joiner, &c., in the fitting shop, and other gear. Besides the two Darlington rock-borers now at work there is another on the mine, and awaiting erection are a stone-breaker, more jiggling machinery, the work for three Borlase's boulders, &c. When these appliances are added to those at present in use the treatment of ores hitherto put aside will contribute further to the productiveness of the mine, and better results will, of course, follow than have been possible with the limited ore saving machinery previously at work. To facilitate transit to the seaboard (Port Wallaroo, distant about 4½ miles from the mine) a line of rails connects the mine with the Wallaroo and Kadina tramway. The mine is looking exceedingly well, and is selling 300 tons of 16 per cent. ore per month. There is every probability of this output being considerably increased at no distant date, a discovery having been made quite recently near Gurner's shaft in one of the new sections of a rich vein of copper ore about 4 ft. thick. The visitors to the Kurilla will find in Capt. Anthony's possession a collection of mineral specimens which were much admired at the Melbourne Exhibition, and which will repay inspection.

In conclusion, I must not overlook the means of communication with the seaboard, the facilities for shipping, and the smelting works, all of which are important aids to the profitable disposal of the yield of the mines. The chief seaport (Port Wallaroo) of the miners is possessed of jetty accommodation not to be equalled in the colony; the tramways are being worked by the Government, who have also established rail communication between Adelaide and Wallaroo, the last few miles of the railway running parallel with the tramway from Kadina to Wallaroo; and all reasonable requirements of the population (in more prosperous times numbering over 20,000 souls) have been provided for. At Wallaroo, as at several other outports, official blundering led to a waste of public money, but thanks to the persistence of the residents permanent ill consequences were avoided, for the works connected with the new jetty were suspended and not resumed until the mistakes made were rectified. This jetty has not long been out of the hands of the contractor, upon whom it reflects great credit, for it is believed to be thoroughly substantial work, and it is equal to all demands likely to be made upon it for many years, not only by the mines but also by agricultural districts, for the produce of which, by the construction of fresh lines of railway, Port Wallaroo has become the most convenient outlet. As I have already stated, the tramways are now in the hands of the Government, but for many years they were profitably worked by a private company. Sidings are laid down to all the mines now carrying on operations, so that the ore needs but little handling from the time it leaves the dressing-floors until it reaches the smelting works or the vessel's side. The railway between Kadina and Wallaroo is not much used by the miners, being of different gauge, which, like the tramways, are broad gauge, but when connecting lines are put down to the mines horse traction will largely give way to steam. To avoid the lengthy and roundabout

journey to Adelaide via Wallaroo, the Moonta people have fitfully agitated for the construction of a branch of the narrow gauge line from Kadina to Moonta; but since the ore from the mines in the vicinity of Moonta must continue to go to Wallaroo it is doubtful whether the Government will do more than provide steam communication with the latter place, and that, perhaps, only after a good deal of delay.

The SMELTING WORKS, which belong to the proprietors of the Wallaroo Mines, are very extensive, and are capable of dealing with immense quantities of ore; having numerous reducing, roasting, and refining furnaces. The yellow sulphur ores are burnt in calcining kilns to drive off the sulphur before smelting. All the ores are reduced to regulus, which is run out and allowed to cool. The rough blocks of regulus are then submitted to a refining process, which completely separates all foreign matter from the pure metal. The copper is finally run into moulds, either cakes or ingots, and is then trimmed ready for shipment. The brand, "Wallaroo," is not omitted, for this brand commands a higher price in the home market than copper, which has not so good a name. The smelting works are well worthy of description in detail, but unfortunately I delayed my visit until time did not admit of more than a hasty inspection of them. They have every requisite for the effectual treatment of the ore obtained at the mines in the district, and are furnished with complete appliances for assay purposes. The sulphurous fumes and smoke from the furnaces pass through flues to a culvert communicating with an immense chimney-stack, a building which nearly 300,000 bricks were used. The works give employment to a large number of men, and keep colliers constantly trading between Newcastle and Wallaroo, the vessels bringing coal, and usually taking back low-class ores for treatment at the Wallaroo Smelting Company's Hunter River Smelting Works in New South Wales.—*South Australian Advertiser*, Feb. 18.

VAN MINES.—SPECIAL REPORT

MARCH 30.—Having furnished a full report for the meeting last week, it will hardly be necessary for me to trouble you with a long report this week, there being no material change in any point at Van. In the cross-cut south, at the end of the 105 east, we have a very strong lode, but no mineral worth valuing. We are preparing for the deepening of Edward's shaft, and shall put a pair of men there in a day or two.—Van Hill: In the lower cross-cut we have driven 10 ft. The ground in the end looks encouraging, and lets out water freely. The ventilation is rather short, but I have arranged to place a water-blast, which will remedy this deficiency. The trial cross-cut on the western side of the hill is still in a strong sparre lode, showing good spots of lead and copper.

Surface: We are pushing on the farm work as fast as possible. Our four-weekly sale takes place to-day upon 200 tons of lead ore and 120 tons of blonde. As under please find list of bargains for the ensuing two months: The 120 west to four men, at 80s. per fathom. The stripping of the lode to the full width at the No. 3 cross-cut in the 120 to four men, at 65s. per cubic fathom. The same at the 100, west of shaft, to six men, at 57s. 6d. The cross-cut south in the 105 east to four men, 120s. The 75 Permanent level east to four men, at 80s. per fathom. The 15 east to four men, at 75s. The two stopes in the back of the 105 east to eight men, in each, at 50s. and 52s. 6d. per fathom respectively. The western slope to six men, at 52s. 6d. The stopes in the back of the 90 are set as follows:—The 20 to eight men, at 47s. 6d. The 40 to eight men, at 70s. The 60 to eight men, at 67s. 6d. The 80 to eight men, at 60s. The 100 to six men, at 52s. 6d. The stopes in the back of the 75 are set as follows:—The 20 east to eight men, at 65s. The 20 west to eight men, at 50s. The 40 to eight men, at 47s. 6d. The 60 to eight men, at 50s. The 80 to eight men, at 50s. The 100 to eight men, at 50s. The 120 to eight men, at 50s. The 150 to six men, at 65s. The stopes in the back of the 60 west is set to eight men, at 80s. per fathom. The stripping of the lode to full width in the eastern end of the 80 fathom stopes in back of the 105 west is set to two men, at 80s. per fathom. The cross-cut in the lower level at Van Hill is set to six men, at 120s. per fathom. The trial on the western side is set to two men, at 75s. per fathom.—W. H. WILLIAMS.

THE PERRAN SILVER-LEAD CONSOLS—SPECIAL REPORT.

SIR.—I am requested by the directors to enclose you a copy of the agent's report, received to-day, showing that substantial progress has been made in draining the two mines. The Penhale shaft is clear 72 fms. below adit—97 fms. from surface, and no difficulties are anticipated in reaching the bottom—110 fms. below adit—very shortly. The Phoenix shaft is clear 60 fms., at which point it requires repairs, but these are already well in hand, and the bottom, which is only 8 fms. deeper, may be reached early next week. Silver-lead ores are obtainable in considerable quantities at these levels, but the productiveness will undoubtedly increase as greater depths are attained; samples therefrom have been assayed for silver by Messrs. Johnson, Matthay, and Co., assayers to the Bank of England, with the following highly satisfactory results:—From Penhale shaft, 60 fm. level: 27·45 ozs. of silver to the ton. From Phoenix shaft, 50 fm. level, 14·70 ozs. of silver to the ton. It is the intention of the directors to make a special inspection of the mines during the Easter Holidays, leaving London on Thursday evening next, and to ascertain also the requirements for raising and dressing the ores. If you can make it convenient to meet them at the Red Lion Hotel, Truro, not later than 8·30 A.M. on Good Friday, April 7, and accompany them, you will doubtless be much pleased to see the extent and importance of these properties, which the directors are assured—and have every reason to believe—cannot fail when fully developed to be a great success. A more detailed report will be issued after their return.

Redruth, March 29.
ROBERT MAKEPEACE, Secretary.
PENHALE.—The shaftmen are at present engaged in packing the plunger pole, and making new joint at the 70, which will be completed to-morrow morning. The water is 2 fms. below this level, and we shall commence draining again to-morrow. So far as we can judge at present the next plunger lift, which is to the 90, seems to work well; however, should the pole fail under water, we have a working barrel in this lift which will save dropping the long side lift, and we fully expect that this difficult, dangerous, and uncertain work is now at an end, and our progress to the bottom of the mine will now be much accelerated.

PHOENIX.—We have not finished clearing the run at the 60, but hope to do so by Tuesday next, and if there is no debris below this level, we shall be able to drain the water to the bottom in five or six hours after the present choke is cleared. We shall then commence sinking the shaft deeper by a full pair (force) of men, and as soon as we get under the lead-bearing gossan we are safe to have a rich and continuous course of silver-lead—such gossan as this was never known to fail. The winding engine has not arrived yet, and we are greatly in want of it. The two pumping engines continue to work well.

PRYOR AND SONS.

ALMADA AND TIRITO CONSOLIDATED SILVER MINING COMPANY.

J. H. Clemes, Jan. 20: The cross-cut in rise, about 30 ft. above tunnel, Mina Grande, shows in the breast more than half ore. Mr. Harris unites with me in thinking your reserves are all right for this year.

No. 3 furnace is beginning to work hot and fast, and I have left strict orders to make payments to Messrs. Bourne and Son for account Melchers' successores, such sums to be thus ready for remittance to you.

R. Harris, Jan. 20: Furnace No. 3 was running three days ago, and in two or three weeks we expect a considerable increase in the bullion extraction.

GUILAS.—Jan. 28: 9-10 ft. were driven; price \$13·12; total 176 ft.; this cross-cut is much the same as in last fortnight as to class of rock; the men are making good progress in driving.

Feb. 18: Cross-cut for Guilas is 105 ft. from eastern rail; the breast is in a mix-ture of felspar and porphyry.

SAN JOSÉ CROSS-CUT.—Jan. 28: 7 ft. at \$12. This cross-cut has been driven 2 ft. in a lode giving good stones of green ore; if it continues 6 ft. wide it will be paying ground to work; at present it is looking very promising.

Feb. 18: The cross-cut west San José is yet in lode matter; the lode is 18 ft. wide, with a good appearance—quartz and strong spots of green ore.

STONE IN BACK OF RISE ON WESTERN BRANCH ABOVE TUNNEL: Jan. 28: In the south end of rise there is 3 ft. wide of black ore. We have started the men to drive south on it.

No. 2 STOPE is much the same as in last fortnight. It is one that we think will pay to work, but not leave much profit.

THE CROSS-CUT EAST FROM RISE: 30 ft. above tunnel, is still in good black ore. In the 100 ft. level above tunnel there is 1 ft. wide of ore.

Feb. 18: The drift north of Mina Grande, 100 ft. level, has 1 ft. wide of ore.

Jan. 28: The large stope, Mina Grande, is still looking well, giving plenty of good rock for the mill.

Feb. 18: The large stope back of 12 Mina Grande is still looking well, giving plenty of ore for the mill.

Feb. 18: The pillar above tunnel, Mina Grande, is looking well; we are rising to ascertain the height of it; the length at present is 50 ft.

Jan. 28: The men are making good progress in the drift on western branch for new part of tunnel; there are stones of ore in the breast, but not sufficient quantity to value.

BENIFICO.—Feb. 9: The four furnaces are running now pretty well, the roasting work being 30 to 36 tons per day; this gives full supply to the leaching work.

FIREWOOD.—Feb. 18: We are receiving 110 or 115 cords weekly at \$7.

SALT.—We pay \$3, all that is offered.

The directors have also received the following telegrams:

Jan. 18: Profit for December, \$12,000.

Feb. 20: I think good arrangements can be made as to person to leave in charge.

Feb. 20: Month's profit for January, \$7500.

March: Clemes has appointed a satisfactory successor.

March 13: Profit for February, \$11,000; month's produce, February, \$40,000.

Person to leave in charge very satisfactorily arranged; contracted for one year total; will keep books and initiate new mineral superintendent.

Mr. Justice Chitty has appointed Mr. H. Woodburn Kirby (Messrs. Leslie, Kirby, Strath, and Co.), of Coleman-street, official liquidator of the German Date Coffee Company; the appointment of the Earl Poulett, and Mr. Fortescue Haymen not being confirmed.

HOLLOWAY'S PILLS—ALL OUR FACULTIES.—Almost all disorders of the human body are distinctly to be traced to some impurity of the blood. The purification of that fluid is the first step towards health. Holloway's Pills recommend themselves to the attention of all such sufferers. They search out and remove all impurities from the vital fluid. In indigestion, confirmed dyspepsia, and chronic constipation the most beneficial effects have been, and always must be, obtained from the wholesome power exerted by these purifying Pills over the digestion. Persons whose lives have been restored to ease, strength, and perfect health by Holloway's Pills, after fruitless trial of the whole pharmacopœia of physic, attest this fact. This is beyond dispute.

Registration of New Companies.

The following joint-stock companies have been duly registered:

THE HARTLEPOOL FISHERIES COMPANY (Limited).—Capital, 50,000*l.*, in shares of 5*l.* To work fisheries off the coast of England and elsewhere, and for towing vessels. The subscribers are—J. Rawlings, Hartlepool, 45; C. S. Todd, Hartlepool, 40; J. Callender, Hartlepool, 40; J. Tweddell, Hartlepool, 50; J. Gardner, Hartlepool, 20; S. Armstrong, Hartlepool, 20; J. Graham, Hartlepool, 10.

THE EDISON ELECTRIC LIGHT COMPANY (Limited).—Capital, 1,000,000*l.*, in shares of 10*l.* To carry on the business of electricians, &c., in conjunction with certain acquired patents. The subscribers (who take 500 shares each) are—E. P. Bouvierie, 44, Wilton crescent; Sir John Lubbock, Bart., High Elm, Denn; H. Gilliat, 4, Grosvenor-square; W. Fowler, 38, Grosvenor-square; F. J. Bramwell, 37, St. George's-street; E. H. Johnson, 57, Holborn Viaduct; W. G. Battcham, 2, Fenchurch-avenue.

THE ECCLESTON FOUNDRY COMPANY (Limited).—Capital 20,000*l.*, in shares of 20*l.* To purchase and continue a business established at Eccleston, St. Helens. The subscribers (who take one share each) are—J. Windus, St. Helens; G. Harris, St. Helens; W. Harris, St. Helens; G. Oldham, Southport; P. Robinson, Birkdale; J. Massey, St. Helens; H. Massey, St. Helens.

MORRIS'S AIMING AND SIGHTING APPARATUS COMPANY (Limited).—Capital 10,000*l.*, in shares of 5*l.* and 1*l.* To carry on the business of gun and firearms manufacturers, also of ammunition, &c. The subscribers are—Earl Brownlow, Grantham, 50; Earl of Wharncliffe, Sheffield, 10; Viscount Lewisham, 55, Manchester-street, 10; Sir H. Wilmet, M.P., Chaddesden, 10; G. F. Talbot, 18, Chapel-street, 10; M. R. Smith, 1, Lombard-street, 20; R. T. Lattey, 16, Devonshire-square, 10.

THE LONDON ZINC MILLS (Limited).—Capital 20,000*l.*, in shares of 10*l.* The acquisition and working of certain works situate in the Wenlock-road, City-road, Middlesex. The subscribers (who take one share each) are—A. R. M. Woolley, 80, St. Donald's-road; A. E. Lush, Brockley; W. Newton, 124, Caen-street; F. Edwards, 114, Camden-street; J. C. Hawart, 61, Alcort-road; J. Ewings, Highgate; J. A. Billett, 40, Queen's Crescent.

DUMFRIES SHIP REPAIRING AND ENGINEERING COMPANY (Limited).—Capital 12,000*l.*, in shares of 50*l.* Carrying on the business of engineers, ironfounders, boiler makers, shipbuilders, and repairers, &c. The subscribers (who take one share each) are—H. Cloak, Cardiff; A. Thoneley, Clifton; J. R. Powell, Cardiff; W. Lee, Cardiff; T. H. Owen, Cardiff; W. P. Owen, Cardiff; G. T. Baker, Cardiff.

THE PONDERS END BRICK COMPANY (Limited).—Capital 10,000*l.*, in shares of 100*l.* The making, working, and selling of bricks, gravel, &c. The subscribers (who take one share each) are—E. C. Kirkness, Snarebrook; T. D. Whitehead, Forest Gate; M. M. Glover, 9, Bloomfield-street; A. Butler, Benfield; J. Gransden, Wanstead; W. Wilson, Leyton; F. C. Noble, Forest Gate.

TRIMSFORD COMPANY (Limited).—Capital 100,000*l.*, in shares of 5*l.* To improve, manage, develop, farm, and work or otherwise deal with property, mines, minerals, and effects, which form the subject of an agreement about to be adopted and carried out by the company. The subscribers (who take one share each) are—T. Rock, 46, Leadenhall-street; T. Peck, 4, Fenchurch-street; H. M. Simons, 39, Lime-street; W. R. Winch, 4, Fenchurch-street; W. Paterson, 99, Lime-street; J. Wilson, 39, Lime-street; E. Clark, 1, cushion-court.

THE LYNN COLLIERY COMPANY (Limited).—Capital 10,000*l.*, in share of 5*l.* To adopt and carry into effect an agreement made between J. S. Tumilty, on the one part, and E. L. Lewes, on behalf of the company, for the acquisition of the estate, right, title, and interest in the seams of coal and fireclay known as the Yard and the Red and Old Coal Seams, situated at Nant-y-Glo, Monmouth, together with the Forge Pit and Wainhelyg Pit, with all machinery, rolling stock, plant, implements, effects, and good will of the business, for the purpose of carrying on the business of a colliery owner in all branches. The subscribers (who take one share each) are—J. S. Tumilty, Bootle, colliery owner; E. L. Lewes, Liverpool, gentleman; M. H. Larmon, Liverpool, gentleman; A. H. Holme, Liverpool, railway contractor; C. F. Smith, Liverpool, solicitor; P. Eberle, Liverpool, gentleman; J. R. Barratt, Liverpool, solicitor. The consideration given for the property is 5000*l.*, equally divided in cash and shares. The following constitute the board—Messrs. Tumilty, Lewes, and Larmon, the qualification being fixed at 50 shares.

THE VAN DIEMAN'S LAND MINERALS COMPANY (Limited).—Capital 30,000*l.*, in shares of 1*l.* Searching for, exploring, winning, and working any mines or minerals or other substances in Van Dieman's Land (Tasmania) or elsewhere, preparing, smelting, refining, manufacturing, or otherwise preparing for sale and selling all such mines, minerals, and other substances, and generally to carry on all operations of a mining and smelting company. The subscribers (who take 10 shares each) are—W. H. Gramshaw, Stock Exchange, gentleman; L. Paine, Stock Exchange, gentleman; C. G. Hale, 26, Austin-friars, stockbroker; J. Hutchinson, 15, Angel-court, gentlemen; E. Wright, Stock Exchange, gentleman; W. Ekyng, Stock Exchange, gentleman; G. Wedd, Stock Exchange, gentleman. Messrs. Gramshaw, Hall, Hutchinson, T. D. Edwards, and T. J. Reeves are the first directors.

THE HARTSHILL QUARRY COMPANY (Limited).—Capital 10,000*l.*, in shares of 5*l.* To purchase or otherwise acquire and carry on a quarrying business at Mancetter, Warwick. The subscribers (who take one share each) are—J. B. Tippets, 4, Great St. Thomas Apostle; W. J. Tippets, 4, Great St. Thomas Apostle; R. Neale, South Hampstead; R. Silk, Sherring; M. Jackson, 79, Warwick-street; C. E. Sharman, Buckhurst; C. R. A. Edmonds, St. John's Wood.

THE ELECTRICAL POWER STORAGE COMPANY (Limited).—Capital 800,000*l.*, in shares of 10*l.* The business of electricians and electrical, mechanical, and chemical engineers, workers, and dealers in electric motive power and light. The subscribers (who take one share each) are—Sir D. Cooper, 6, De Vere Gardens; F. G. Stuart, 32, St. James's-square; J. T. Courtney, 1, Essex-court; W. Ladd, 11, Beauchamp-street; C. Donnan, Sydenham; W. M. Bullivant, 72, Marlborough-street; F. Green, 13, Fenchurch Avenue.

THE ROCK ENGINEERING COMPANY (Limited).—Capital 150,000*l.*, in shares of 10*l.* To carry on the trades of engineers, iron and brass founders, smiths, railway carriage and wagon builders, &c. The subscribers (who take one share each) are—J. Close, York; J. Walker, York; J. J. Leemal, York; A. Walker, York; J. Close, jun., York; J. Pearson, York; J. Wilkinson, York.

CORRUGATED FLUES IN OCEAN STEAMERS.

The trial trip of the Stirling Castle at Glasgow on Saturday has proved her to be the fastest ocean-going steamer afloat—a result which has only been achieved by the exercise of the soundest judgment and the adoption of the most approved inventions in the market. The Stirling Castle, which was built by Messrs. J. Elder and Co. for Messrs. Skinner's steam-clipper line, is 436 ft. in length, 50 ft. beam, 33 ft. in depth, and registers 4300 tons gross. Her set of engines are of Messrs. Elder and Co.'s three cylinder type, indicating over 7000 horse-power. The sizes of the cylinders are—one of 63 in. diameter, and two of 90 in., with 5 ft. 6 in. stroke. The total heating surface of the boilers is 21,160 square feet, and the grate surface 787 ft. The boilers are of Parkhead steel, and the propeller, which is made of manganese bronze, is 24 ft. 4 in. in diameter, with a pitch of 31. The measured mile was traversed six times, both with and against wind and tide, the time being 3 minutes 12 seconds to 3 minutes 13 seconds in the one case, and 3 minutes 18 seconds to 3 minutes 20 seconds in the other, representing an average of 18·48 knots an hour, giving an Admiralty mean average of 18·48 knots, or 21·303 miles per hour. The average number of revolutions on the trial was 664 a minute, with 100 lbs. of steam pressure to the square inch, and 28 in. vacuum. The contract speed for the vessel was 17·5 knots, and the draught of water was to be 22 ft. 3 in. m.t.s., while in reality it was 2 in. in excess of this measurement.

Notwithstanding the high speed the vessel was remarkably steady, and the vibration almost imperceptible. This was very markedly shown by filling a wine-glass with water as full as it would hold, and placing it on the saloon table. Even in the fastest run not a drop overflowed. On the previous day there was an official six hours trial of the steamer, when a run was made from Cumb

the newly-found commentary. The obituary includes notices of Mr. R. H. Dana, Prof. John W. Draper, and Mr. Carl Louis Schwendler. The usual lists of new books are followed by list of works in preparation, and in a supplemental sheet there is an excellent biographical notice of the late Dr. John Muir.

BRITISH MINES.

The following were received to late to be inserted in their proper places:—
CARNARVON COPPER.—J. Roberts, W. Darby, March 28: In the sump at the sole of the 90 ft. lode continues worth 4 tons of ore per fathom. In the slope east of winze in the 80 ft. lode has improved during the week, and is worth at present 1 ton 5 cwt. of ore per fathom. In the sump at the 46 ft. (Cae-y) lode the lode has become poorer, and the ground a little firmer. No other change to notice since reported last week.

DRAKE WALLS UNITED.—M. Bawden, March 29: There is no alteration to notice in any of the underground operations. Saturday next being our setting-day, a full report will appear in next week's Journal.

DERESBY MOUNTAIN.—J. Roberts, W. Sandoe, March 22: Since communicating the rise at No. 6 with the No. 5 we have, for the proper working of the end going south and the stopes in the bottom of the No. 5 north, been engaged in setting in timber, and are now in full course of driving and stoping. The end south maintains its full value, as we have reported before, worth 5 tons to the fathom. The stopes on the north rise is looking well, and worth from 2½ tons to 4 tons to the fathom. The north end at this level is worth 15 cwt. of lead to the fathom. We are only carrying a small portion of the lode here, and what the remaining portion may be worth we cannot say. The No. 6 end is looking better and appears to be daily improving, and there is every probability of the richer part of the course of lead at the No. 5 dropping down over the end in a very short space of driving. We shall get 30 tons of lead in the lead house tomorrow, which we propose sampling on Friday.

EAST BLUE HILLS.—S. Bennetts, March 29: The Baldhu lode in the adit east end is 2 ft. wide, and worth 6½ per fathom. In the 40 ft. east end it is 4 ft. wide, worth 7½ per fathom. The Pink lode in the adit east end is 1 ft. wide, containing a little copper and blonde, but not much tin.

EAST LONG RAKE.—H. B. Vercoe, March 30: In the 50 west we are in a wide lode, containing spots and lumps of lead. To-morrow being the last day of the month I intend setting the men to cross-cut to the foot and hanging walls, still believe there is a good course of one either on one side or the other. In the 50 cross-cut north, to prove the Old Long Rake lode, there is no change, the fore-breast being in a mass of carbonate of lime, spotted with lead; the footwall has not yet been intersected. In the rise of the 50 west we have a good lode of ore, but not quite so rich as last reported, now yielding 1½ tons per fathom; this rise is going up in unexplored ground, and it is not at all improbable that there are hundreds of tons of lead above the roof of this level in connection with this deposit. No change in the 50 east. Dressing proceeding as usual, and we shall have a good parcel of lead to sell at the next ticketing. I purpose making some small addition to the dressing-floors to enable us to dress more ore at a less cost.

KIT HILL GREAT CONSOLS.—Isaac Richards, March 30: During the past month the tunnel level has been driven 5 fms. 3 ft., making the total distance 54 fms. A small branch or lode 6 in. wide has just been intersected, composed principally of quartz, with a little oxide of iron. The ground is of a favourable nature, and fair progress in driving continues to be made. In the north engine-shaft sinking below the 62, now down 7 fms. 4 ft. 6 in., the lode is 2 ft. wide, composed of a large proportion of quartz, capel, mundic, and occasionally a small quantity of tin. In the 62, west of the engine-shaft, now about 20 fms. west, the lode is 2 ft. wide, composed of peach, capel, and wolfram, and is yielding some saving work of tin ore. In the 62, east of the north engine-shaft, which has reached 14 fms. 4 ft. 10 in. in that direction, the lode is 3 ft. wide, composed of capel, quartz, and mundic, with a small quantity of tin ore. The surface operations-excavations for foundations of houses for engine, air compressors, &c., to drive rock-drill machinery—are being pushed on with all possible speed.

SOUTH DEVON UNITED.—William Hooper, March 30: Setting report: The 110 east of Brook engine-shaft has been driven during the past month 2 fms., set to six men at 10½ lbs. per fathom. The lode is 4½ ft. wide, with a value of 28½ per fathom. This end continues to lay open stoping ground, and so far has proved equal to anything that has been said about it, and there is every prospect as this level is extended east that most valuable discoveries will be met with. The 100 over this point and for many fathoms east beyond the 110 was driven through a rich lode, in places it was valued by several inspectors to be worth from 150 to 180 per fathom. With such a lode gone down in the bottom of the 100, and from the present appearances of the 110 end, we have every reason to believe that rich deposits of copper will be found, in fact, equal to any that has been made in the mine.—No. 1 stope in the back of this level is set to six men at 3½ lbs. per fathom, the lode is 4 ft. wide, with a value of 9½ per fathom. No. 2 do., set to six men at 3½ lbs. per fathom; the lode is 3½ ft. wide, with a value of 9½ per fathom. The lode in the winze sinking in the bottom of the 100 east of Brook shaft is worth 5½ per fathom. Contract here not out. Started to communicate to the stope in the back of the 110 we expect this to be communicated during the present month, when good ventilation will be given to this part of the mine. The lode in the rise in the back of the 100 against Martin's shaft is of a very promising character, being fully 4 ft. wide, with a value of 5½ per fathom. The rise is up about 4 fathoms, and the men are doing good duty. We hope to communicate this point with the winze sinking in the bottom of the 90 during the month, when the men will be put immediately to drive the 100 and 90 ends, and from their very promising appearance I have not the slightest doubt but what vast discoveries will be made. The winze in the bottom of the 90 has been sunk during the past month 2 fathoms. The lode is 4 ft. wide, composed of quartz, mundic, and stones of copper ore. We expect an early improvement here from the fact of the lode in the rise being worth 5½ per fathom. As stated above, we hope to communicate this against the rise in the course of the month, when we shall be in a position to commence a rise in the back of this level against Martin's shaft. This work will have our best attention, and be pushed on with all possible force. The stope in the back of this level, the 90, is set to two men at 3½ per fathom; the lode is 3 ft. wide, with a value of 5½ per fathom. The 90 east of Brook engine-shaft has been driven during the past month 1 fathom, set to two men at 5½ per fathom; the lode is 4 ft. wide, composed principally of spar and mundic with spots of copper ore. No. 1 stope in the back of this level is set to six men at 5½ lbs. per fathom; the lode is 5 ft. wide, with a value of 7½ per fathom. No. 2 do., set to six men at 5½ per fathom; the lode is 3 ft. wide, with a value of 7½ per fathom. No. 3 do., set to eight men at 6½ per fathom; the lode is 4 ft. wide, with a value of 7½ per fathom. The adit level west of Old Sump shaft has been driven during the past month 2 fathoms, set to two men at 5½ per fathom; the lode is 4 ft. wide, containing spar, mundic, and spots of copper ore; there is little or no change in the character of the lode, still presenting its most promising appearance, containing all the necessary components for producing large quantities of copper ore as depth is reached.—PICKSTONES SHAFT: The men have nearly completed the repairing of skip road, and are now engaged clearing down the shaft and getting the lift of pump ready preparatory to fixing them in their place. Martin's shaft has been sunk during the past month 2 fm. 5 ft., making a total depth from surface of 33 fm. 1 ft. 6 in.; the men have not as yet completed their contract of 10 fathoms, therefore no alteration in the price of sinking takes place this time; the ground is of the finest description, being of a beautiful light yellow, and the men are doing good labour. Knowing the shaft to be of very great importance, it is being pushed on with all possible force. Our hauling and dressing operations are continually kept going, and, as already stated, nothing more can be done before other hauling power is erected, and Martin's shaft communicated with the levels below, when the samplings will be greatly increased; we have large reserves of ore in the mine to be stopped away.

WEST OREBOR.—J. Andrews, March 29: The casing of the shaft and the ladder road is completed, and the shaft is again in regular course of sinking by nine men in favourable ground for progress, but as yet there is no change in the lode.

WEST HOLWAY.—R. Rowlands, March 29: In the sinking of the new shaft the lode continues of the same strength as previously reported. There is a nice mixture of lead in the heading side of the lode. In the driving of the 100 the lead is improved, now that we have passed the disturbance caused by the swallow. I have no further change to report at present in the other bargains, which are as some time past.—Ramshaw: We have got through another joint in the fore-brace, and I hope soon to say that we have the lode.

WEST VOR AND LEEDS.—S. Harris, March 30: The adit level driving east of cross-cut on Sozen lode continues about 5 ft. wide, very good, with arsenical mundic and a little copper, and sufficiently productive for tin to be remunerative had we stamps on the mine, but in extending the level east towards the Old Wheal Vor Mine we have less backs, therefore we cannot expect to meet with any great improvement without going deeper, at the same time it is very necessary that this adit level should be continued even to the boundary of the sett for drainage, ventilation, &c., and for the permanent working of the mine.

IMPROVED MINERS' CARTRIDGES.—In cartridges as ordinarily made the powder is apt to be driven out of the bore hole in part unconsumed. To obviate this air spaces or chambers are left in the cartridge, or round it in some cases; but air is not near so effective as oxygen, as the latter combines more quickly with the carbon. A passage too right through the centre of the cartridge, open to every surrounding part, yet filled with oxygen, is, in the opinion of Mr. William Hogarth, of Southport, theoretically the most perfect form of air space possible. He claims that his invention in practice accomplishes this. He places a glass bottle or other cylinder of fragile but perfectly impervious material in the centre of the cartridge, forming a central core and filled with oxygen at atmospheric or higher pressure, hermetically sealed. The concussion of ignition immediately smashes the bottle to fragments and forms a central space for the gases and unconsumed powder to rush in and mix and combine with the oxygen already there. If desirable there can be several glass cylinders variously placed instead of one.

RE-STARTING OF THE NORTH YORKSHIRE IRONWORKS.—These works, situated at South Stockton, are to be recommended immediately, under the name of the South Stockton Iron Company. The principal kind of iron to be manufactured will be puddled bars, bolts, T's, and angles, and it is intended to commence with 24 puddling furnaces. Ald. J. Richardson, of Potter Hall, is chairman of the company, and Messrs. C. A. Head, J. P. Mark Robinson, and W. Anderson constitute the board of directors. Mr. H. Smith is appointed secretary, and Mr. David Harrison, from the Elsecar Iron-works, near Barnsley, has been appointed practical manager.

TUBES

SILVER MEDAL (HIGHEST AWARD) MELBOURNE, 1881.

JOHN SPENCER,

Tube Works, West Bromwich, and 3, Queen Street Place, LONDON, E.C.

FIRST PRIZE, SYDNEY, 1880.

TUBES AND FITTINGS for Gas, Steam, and Water; Galvanised, Enamelled, and Hydraulic Tubes; Boiler

Tubes and Fittings; Gas Fitters' Tools; Brass Cocks, &c.

ANTI-CORRODO TUBES AND FITTINGS COATED BY BARFF'S HOTLESS PROCESS.

SIX PER CENT. DEBENTURES AT 98.

The Yorke Peninsula Mining Company (LIMITED).

CAPITAL { 75,000 ORDINARY } SHARES OF £1 STERLING EACH.

54,800 PREFERENCE } FREDERICK PETERSON WARD, Esq., CHAIRMAN.

DIRECTORS.

RICHARD BYAM OTTLEY, Esq.

GEORGE CLERIHEW, Esq.
JOHN DARLINGTON, Esq.

FREDERICK P. WARD, Esq.

COMMITTEE OF INSPECTION IN AUSTRALIA.
The Hon. Sir THOMAS ELDER, M.L.C., Adelaide.
The Hon. Sir JOHN MORPHETT, M.L.C., Adelaide.

The directors of this company are prepared to receive applications for the unallotted portion (£14,000) of a total of £25,000 of debentures authorised to be issued at the price of 98 per cent., in sums of £100, or multiples thereof.

Interest at the rate of 6 per cent. per annum will be payable on the debentures half-yearly, on 1st January and 1st July in each year by warrants on the company's bankers.

The debentures will be repayable on 31st December, 1886, at par, the company reserving the option to pay any of them off at par on any prior 31st of December after 1883.

Forms of Application, with all further information, may be obtained at the office of the company, 50, Old Broad-street, London, E.C.

By order of the Directors, C. GRAINGER, Secretary.

50, Old Broad-street, London, E.C., 31st March, 1882.

EUREKA (NEVADA) MINING DISTRICT.

SIR,—I have the pleasure to enclose my usual budget of news received from this mining centre:—

The Eureka Consolidated during the month of February shipped \$68,801.73 in bullion.

Acknowledged is again, within a fraction, the boss of the stock market. A dividend for March is among the possibilities.

The little difficulty between the tributaries and the Richmond Company has had the effect of bringing numbers of Ruby Hillers down to town.

A letter from London States that Mr. Rickard, formerly superintendent of the Richmond Company, has been appointed manager of the Ruby and Dunderberg Company.

Extensive mining operations will soon be commenced by the Ruby and Dunderberg. The company has been put on a permanent cash basis.

RUBY HILL.

EUREKA (NEVADA).—This week's report shows that good progress has been made in drifting on the east cross-cut in favourable ground (Bald Eagle); connection will be made with the old stopes when about 30 ft. further have been worked. Shipments from the Wilhamsburg were 20 tons.

SALES OF COPPER ORES.

COPPER ORES SOLD AT THE CORNWALL TICKETINGS, FOR THE QUARTER ENDED MARCH 31, 1882.

Mines.	Tons.	Amount.
Mellanear.....	172	£5482 15 0
Wheat Jewell.....	292	594 1 0
East Pool.....	150	477 3 0
East Uny.....	50	351 1 6
West Tolls.....	163	895 9 6
Violet Seton.....	135	531 18 0
West Seton.....	64	341 2 9
Wheat Uny.....	25	111 5 0
Mounts Bay Consols.....	20	76 0 0
Devon Great Consols.....	3063	£763 6 6
Wheat Creoer.....	515	1450 2 0
South Caradon.....	1270	5567 15 0
South Devon United.....	320	855 18 0
Mark Valley.....	495	1447 10 6
Glasgow Caradon.....	165	639 14 0
Gawton Copper.....	202	198 2 0
Phoenix.....	30	158 5 0
New Cook's Kitchen.....	75	231 0 0
Carri Brea.....	48	130 18 0
Gunnislake (Clitters).....	809	£451 19 0
West Caradon.....	83	372 19 0
Bedford United.....	40	113 0 0
Mid Devon.....	33	273 0 6
Prince of Wales.....	112	239 2 0
Holmbush.....	88	252 16 0
East Caradon.....	65	271 18 6
New West Caradon.....	35	133 17 6
Calstock and Danescombe.....	6	39 0 0

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Tons.	Amount.
2518	£23,623 5 6
2136	6,960 11 0
2023	5,425 19 3
2531	9,123 11 9
797	2,527 9 6

Total 10,005 £22,660 17 0

COPPER ORES SOLD AT THE SWANSEA TICKETINGS, FOR THE QUARTER ENDING MARCH 31, 1882.

Mines.	BRITISH.	Tons.	Amount.
Berehaven.....	222	£1,066 1 0	
Crownbane.....	6	122 12 6	
Tigrony.....	5	85 12 6	

Total 233 £1,274 6 0

COLONIAL.	FOREIGN.
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THE
QUEEN OF THE MOUNTAIN LEAD
MINING COMPANY
(LIMITED).

These mines are situate on the eastern side, but near the centre, of the justly celebrated and well-known Halkyn Mountain, in the parish of Halkyn, Flintshire, North Wales.

Capital £40,000, in 20,000 Shares of £2 each.

Issue of 8723 Shares of £2 each at par, 11,277 having already been allotted. 5s. per share payable on application, 5s. on allotment, and the balance as required in calls of not more than 2s. 6d. per share, at intervals of not less than two months.

The company having purchased and taken over the South Prince Patrick Mines, and having also acquired further mineral rights in addition to their own, now offer for subscription the unallotted shares.

The directors specially wish to draw the attention of intending investors to the prospects of this property.

The Prospectus, Reports, and leave to inspect the Mine, can be obtained from the Secretary,

J. LANCASTER, 13, CASTLE STREET, LIVERPOOL.

MESSRS THOMPSON AND SON, OLD TOWN STREET, PLYMOUTH (Established 27 years), have FOR SALE the undermentioned SHARES, for which offers are requested, viz.—100 Mount Bay Consols, 250 Standard Bank of London, 50 East Wheal Rose, 25 West Wye Valley, 20 Pen-y-Orsedd, 75 Royalton, 50 Pelym Wood, 50 Lady Bertha, 70 Sortridge Consols, 150 Treasvean, 100 Bodidris, 20 Kop's Extract of Meat, and numerous other shares, a list of which will be sent on application.

MR. THORNTON WOODWARD, STOCK AND SHARE BROKER, TRURO.

T. W. can supply a few shares in a Tin Mine just about the point of a good discovery, which is nearly certain to cause a great rise in value of shares. Good for any amount. Immediate application necessary.

JOHN THOMAS, STOCK AND SHARE BROKER. (On commission only.)

Mines inspected and faithfully reported on. Mining Machinery valued. Estimates given for the erection of Mining Plant. Twenty Years' Experience. Advice given as to Buying or Selling Mine Shares.

ADDRESS—REDRUTH, CORNWALL.

THOS. THOMAS, MINERAL AGENT AND ASSAYER COPPER ORE YARD, STRAND, SWANSEA, is prepared to receive Samples for Assay and Analysis, or Consignments of Ore, for Sampling and Sale. Works and Mining Requirements Supplied. Best Furnace Material, Steam or Stone Coal, secured for shipment. Large Experience in Works and Treatment of Minerals.

Upwards of Sixteen Years with one of the Largest Firms in the Ore Trade. References Given.

MR. W. TREGEELLAS, 40, BISHOPSGATE STREET WITHIN, E.C. Deals in all descriptions of STOCKS and SHARES at close market prices. He strongly recommends the immediate purchase of GOLD HILL Mine Shares and BRAZILIAN GOLD Mine Shares, which are safe to have a great rise. Full information on application personally or by letter.

MMR. THOMAS CORNISH, CONSULTING MINING ENGINEER AND FINANCE AGENT. Twenty-five Years Practical Experience in Australian Gold Mining and Management. Advice on Gold Mining Investment. Author of "Gold Mining: its Results and its Requirements." 81, FENCHURCH STREET, LONDON, E.C.

MINING ENGINEER.

ALEX. DEL MAR.

Mining Engineer, late Director of the United States Bureau of Statistics, Mining Commissioner for the United States Monetary Commission, &c., 216, SAN BENE STREET, SAN FRANCISCO: Cable address—"Delmar, San Francisco." Branch Office, 61, Broadway, New York: Cable address—"Delmar, New York." London Agency, H. Stoops and Co., 24a, Southwark-street, S.E.: Cable address—"Delmar, London." Paris Agency, J. H. McDonald and Co., 13, Rue St. Lazare. Cable address—"Delmar, Paris."

FOR SALE,
RICH AND VALUABLE MANGANESE MINES.

Address, "T." MINING JOURNAL Office, 26, Fleet-street, London, E.C.

ALLEN STEAM ENGINE GOVERNOR develops the utmost Power, gives Uniformity of Speed under varying loads, and Economises Fuel. ALSO

PEET'S PATENT VALVE TAP, for Steam, Water, and Gas, from $\frac{1}{2}$ inch upwards. Simple, durable, double seats, full way, and all parts interchangeable. For particulars, apply to—

WHITLEY PARTNERS, RAILWAY WORKS, HUNSLET ROAD, LEEDS.

CENTRAL AMERICAN MINES.

WILLIAM SMEDDLE, M.E., Libertad, Department of Chontales, GREYTOWN, NICARAGUA, (25 years practical experience in Gold Mining—16 in Australia and 9 in Central America) is prepared to EXAMINE and REPORT ON MINING PROPERTIES in CENTRAL AMERICA. Advice as to the best class of Machinery for working same, &c. For terms apply direct; or to Messrs. SMEDDLE and Co., Shildon, Darlington.

VALUABLE ANTHRACITE COLLERY, 982 Acres. Estimated coal unworked 20,000,000 tons; thick seams; can be worked at unusually low cost into truck. Valuable fire-clay seams. Shipping ports, Swansea, Britonferry, and Port Talbot. For particulars, address J. BANFIELD, Swansea.

MINE "EL CALA," GUAYANA, VENEZUELA. COUPONS OF SHARES 322 Gold in bars produced in the month of February, 1882, and remitted to Messrs. Baring Brothers and Co., London, 11,183-08 ozs. DIVIDEND distributed for each coupon, \$400. (Signed) A. LICCIONI, President. (Signed) G. BARNEWITZ, Treasurer.

MONMOUTHSHIRE.

THE LLANDAEL, CWM, AND NEW CWM COLLIERIES. THESE VALUABLE HOUSE COAL COLLIERIES, with the modern PLANT, MACHINERY, RAILWAY WAGONS, &c., will be offered FOR SALE, BY AUCTION, as a going concern, in One Lot, by

Messrs. WILLIAM GRAHAM, SON, AND HITCHCOX, At the King's Head Hotel, Newport, on Wednesday, the 26th day of April, 1882, at Three o'clock precisely.

For particulars of sale and permission to view, apply to the Auctioneers; or to Messrs. COLBORNE and WARD, Solicitors, Newport, Monmouthshire.

COLLIERY FOR SALE.

A RARE OPPORTUNITY FOR INVESTORS WITH CAPITAL.

A COAL MINE, with One Million and a-half TONS of COALS opened out and proved ready for putting to surface, with all MACHINERY, PLANT, sidings, underground rails, and all modern appliances, together with FREEHOLD LAND, BUILDINGS, TWO SHAFT ENGINES, gear, FIVE large BOILERS, &c. The Mine is perfectly free from water and gas, and miners could be set to work the day after the deposit money was paid. This is a genuine concern, and the best reason can be given for its being in the market.

Full particulars and orders to view can be obtained from Mr. JOSEPH STARKEY, 3, Jackson Chambers, 21, South Castle-street, Liverpool.

TEEN PER CENT. DEBENTURE BONDS, amply secured on undebtful security. A very favourable opportunity for investing money. Full particulars from Messrs. THOMPSON and SON, F'onthorpe; or G. FOUCHE, Stock Broker, 44, Mildmay Chambers, London, E.C.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACTS, 1862 to 1880, and of the CALLINGTON CONSOLS (LIMITED). Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE-NAMED COMPANY by the Court, was, on the 25th day of March instant, presented to the Vice-Warden of the Stannaries by FREDERICK JONES, of Albert Terrace, Church Road, Upper Norwood, in the county of Surrey, Wine Merchant, claiming to be a creditor of the said company, and that the said Petition is directed to be heard before the Vice-Warden, at the Law Institution, in Chancery-lane, London, on Monday, the 17th day of April next, at Three o'clock in the afternoon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days notice to the Petitioner, his solicitor, or their agent, of his intention to do so, such notice to be forthwith forwarded to Sir PHILIP PROTHEROE SMITH, Knight, Secretary of the Vice-Warden, Truro.

Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same from the petitioner, his solicitors, or their agent, within 24 hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's office, Truro, on or before the 15th day of April next, and notice thereof must, at the same time, be given to the petitioner, his solicitors, or their agent.

F. HEARLE COOK, Truro, Cornwall.
Agent for Snell, Son, and Greenip, 1, George-street, Mansion House, London, E.C., Petitioner's Solicitors.

Dated Truro, the 29th day of March, 1882.

In the High Court of Justice.—Chancery Division.

1882, B., No. 939

IN THE MATTER OF THE COMPANIES ACTS, 1862 AND 1887, AND IN THE MATTER OF THE BERLANGE AGENCY COMPANY (LIMITED).

THE CREDITORS of the above-named company, who have not already been allowed as creditors by the Liquidator of the said company, are hereby invited, on or before the 12th day of April, 1882, to SEND their NAMES and ADDRESSES, and the particulars of their DEBTS or CLAIMS, and the names and addresses of their solicitors, if any, to Mr. ARTHUR ABRAHAM LEVY, of 110, Fenchurch-street, in the City of London, England, Gentleman, the Liquidator of the said company, and if so required by notice in writing from the said Liquidator are, by their solicitors, to come in and prove their said debts or claims at the chambers of Mr. JUSTICE FRY, situate No. 12, Staple Inn, Holborn, in the County of Middlesex, England, at such time as shall be specified in such notice, or, in default thereof, they will be EXCLUDED from the BENEFIT of any DISTRIBUTION made before such debts are proved.

Tuesday the 25th day of April, 1882, at Twelve o'clock at noon at the said Chambers is appointed for hearing and adjudicating upon the said debts and claims.

ALFRED RAWLINSON, Chief Clerk.

Solicitors for Official Liquidation.

Dated this 21st March, 1882.

WELLINGTON FOUNDRY, MIDDLESBOROUGH.

TO BE SOLD, BY AUCTION, at the Queen Hotel, Middlesborough, on Tuesday, April 18th, 1882, at Two for three o'clock in the afternoon (C. WELLMAN, Auctioneer), the WELLINGTON FOUNDRY and its belongings, situated at Middlesborough, in the County of York.

For particulars and conditions of sale, apply to the Auctioneer; or to Messrs. HUNTON and BOLSOVER, Solicitors, Stockton-on-Tees.

MOUNT CASHEL IRON ORE MINES, CO. ANTRIM, IRELAND.

The Advertiser solicits an OFFER for the WHOLE or PART of TWENTY fully paid-up £100 shares.

Address, "G. W. B." MINING JOURNAL Office, 26, Fleet-street, London, E.C.

FOR SALE: ONE 50 inch and ONE 40 inch PUMPING ENGINES, with BOILERS and FITTINGS.

ONE 22 inch ROTARY ENGINE.

ONE 12½ inch HORIZONTAL ENGINE, with CAPSTAN and HAULING MACHINE attached.

All the above Engines are in first-class condition.

Several WATER-WHEELS, from 20 to 60 feet diameter. STAMPS' AXLES, and a large quantity of SECONDHAND MINING MATERIALS.

Apply to J. and H. PEARCE, TAVY IRONWORKS, TAVISTOCK.

FOR SALE, a 30 H.P. PORTABLE STEAM ENGINE; with link-motion reversing gear, has drum and gearing complete for winding and pumping.

A 14 H.P. PORTABLE WINDING AND PUMPING ENGINE.

Also a 6 H.P. PORTABLE HOISTING ENGINE.

Apply to—
BARROWS AND STEWART, ENGINEERS, BANBURY.

SECOND-HAND, BUT EQUAL TO NEW:—STEAM BOILERS.—Three first-class Boilers, 30 ft. by 7 ft., two flues, Galloway tubes in, and fittings, four years old, insured at 75 lbs. pressure. Will be sold cheap.

BOILERS.—Two Boilers, 28 ft. by 7 ft., two flues. Been working at 65 lbs. Price on rails, £130 each.

Other sizes of Boilers in stock, in excellent condition, 28 ft. by 7 ft., 24 ft. by 7 ft., 24 ft. by 6 ft., 20 ft. by 5 ft., 15 ft. by 5 ft., and 12 ft. by 5 ft. Safe for 65

and 60 lbs. pressure. Very cheap.

PUMPING ENGINES.—Beam and Horizontal. Diameters of cylinders, 100 in., 90 in., 85 in., 80 in., and 38 in. Very cheap.

WINDING ENGINES and COLLIERIE PLANT of every description, second-hand, in stock.

H. HELLEWELL AND CO., 4, NORTH CORRIDOR, ROYAL EXCHANGE, MANCHESTER.

TO BE SOLD, a SECONDHAND 12-H.P. PATENT ROBEY MINING ENGINE and LOCOMOTIVE BOILER combined, with 5 ft. WINDING DRUM and PUMPING CRANK.

Further particulars and price on application to ROBEY and CO., Globe Works, Lincoln.

SOUTH AFRICA (KIMBERLEY) DIAMOND FIELDS.

INVESTORS desirous of getting AUTHENTIC and RELIABLE INFORMATION on the DIAMOND FIELDS in the above Region, can procure the same through the Agency of Mr. JOHN HOCKING, Engineer, Trewirgie-road, Redruth.

THE LINARES LEAD MINING COMPANY (LIMITED).

Notice is hereby given, that the HALF-YEARLY GENERAL MEETING of the shareholders of this company will be HELD at this office, on THURSDAY, the 6th April next, at One o'clock P.M.:—

To receive the accounts, balance-sheet, and reports of the directors, auditors, superintendents, and mining agents, for the half-year ending 31st December, 1881.

To elect two directors in the place of Robert Henry and J. P. Judd, Esqrs., who go out of office by rotation. They are both eligible, and offer themselves for re-election.

To appoint two auditors for the ensuing year. Edward L. Agar and William Carter, Esqrs., who are eligible, offer themselves for re-election.

And for general business, as authorised by the Deed of Settlement.

By order of the Board, H. SWAFFIELD, Secretary.

5, Queen-street-place, Upper Thames-street, London, E.C., 29th March, 1882.

THE FORTUNA COMPANY (LIMITED).

Notice is hereby given, that the HALF-YEARLY GENERAL MEETING of the shareholders in this company will be HELD at this office, on THURSDAY, the 6th April next, at half-past One o'clock, P.M.:—

To receive the accounts, balance-sheet, and reports of the directors, auditors, superintendents, and mining agents, for the half-year ending 31st December, 1881.

To elect two directors in the place of Robert Henry and John R. Peill, Esqrs., who go out of office by rotation. They are both eligible, and offer themselves for re-election.

To appoint two auditors for the ensuing year. E. J. St. John, Esq., and Richard Donogan, Esq., who are eligible, offer themselves for re-election.

And for general business, as authorised by the Articles of Association.

By order of the Board, H. SWAFFIELD, Secretary.

5, Queen-street-place, London, E.C., 29th March, 1882.

THE ALAMILLOS COMPANY (LIMITED).

Notice is hereby given, that the HALF-YEARLY GENERAL MEETING of the shareholders in this company will be HELD at this office, on THURSDAY, the 6th April next, at Two o'clock P.M.:—

To receive the accounts, balance-sheet, and reports from the directors, auditors, superintendents, and mining agents, for the half-year ending 31st December, 1881.

To elect two directors in the place of John Phillips Judd and John Robinson Peill, Esqrs., who go out of office by rotation. They are both eligible, and offer themselves for re-election.

To appoint two auditors for the ensuing year. Edward J. St. John and William Carter, Esqrs., who are eligible, offer themselves for re-election.

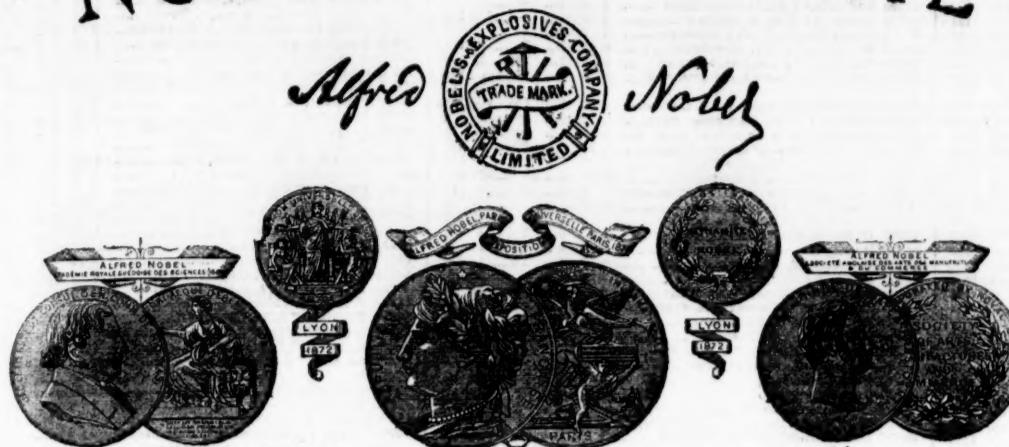
And for general business, as authorised by the Articles of Association.

By order of the Board, H. SWAFFIELD, Secretary.

5, Queen-street-place, Upper Thames-street, London, 29th March, 1882.

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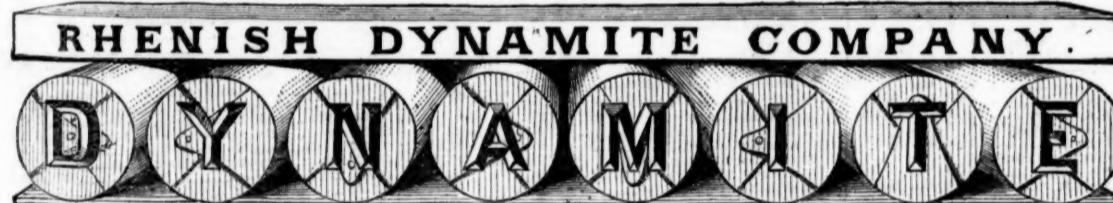
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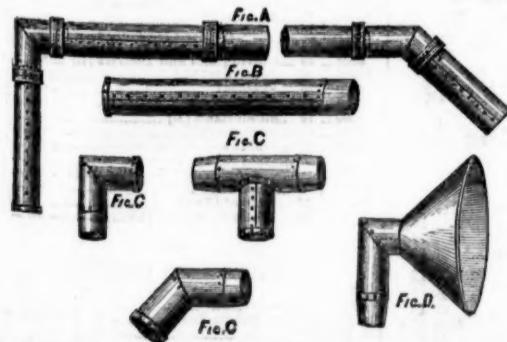
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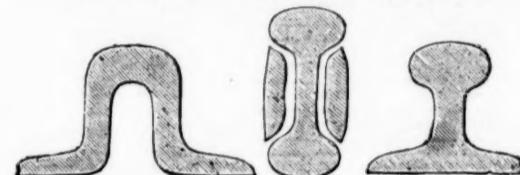
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3200 Blue Hills, t, St. Agnes	4 6	...	1 1/4	1 1/4	...	0 2 0
10000 Caron, t, Cardigan	2 0	...	36	36	...	0 2 0
6000 Carn Brea, c, t, Illogan	9 7	11	17 1/2	17	17 1/2	52 11 8
10240 Devon Gt. Consols, c, a, Tavistock†	1 0	0	7 1/2	7 1/2	...	0 10 0
4236 Dolcoath, c, t, Camborne	10 14	10	85	80	85	... 127 13 9
6400 East Pool, t, c, Illogan	0 9	9	58	57 1/2	60	... 27 11 0
12500 Frongoch, *t, Cardigan (10000 sh. iss.)	2 0	0	3	2	3	0 2 0
12000 Great Holway, t, Flintshire	5 0	0	51/2	5 1/2	5 1/2	0 5 0
15000 Great Laxey, t, Isle of Man†	4 0	0	18	17	18	27 18 0
6400 Green Hurlth, t, Durham	0 6	0	9	8 1/2	8 1/2	3 7 0
20000 Grogwinion, t, Cardigan*	2 0	0	2 1/2	1 1/2	2 1/2	0 16 4
10240 Gunnislake (Gitters), t, c	2 2	0	3	2 1/2	3	0 19 2
2800 Isle of Man, t, Isle of Man*	25 0	0	—	—	—	0 2 0
20000 Leadhills, t, Lanarkshire	6 0	0	2 1/2	2	2 1/2	0 15 0
4400 Lieburne, t, Cardiganshire	15 15	0	—	—	—	612 10 0
10000 Melinclear, c, Hayle	2 6	0	4 1/2	4 1/2	4 1/2	1 12 0
9300 Minera Mining Co., Wrexham*	5 0	0	10	8	19	63 3 8
20300 Mining Co. of Ireland, c, t, f*	7 0	0	2 1/2	2	2 1/2	24 3 0
8000 Mona, t, Anglesea	5 0	0	7	5	6	0 10 0
11829 North Hendre, t, Wales	2 10	0	6	—	—	0 10 0
8146 Ditto	1 5	0	3 1/2	—	—	0 2 6
2000 North Levant, t, St. Just	13 6	0	4 1/2	3 1/2	4 1/2	4 16 0
4763 Penhalls, t, St. Agnes	3 17	0	1	3/4	5	3 17 0
6000 Pennant, t, bar, North Wales*	5 0	0	5	4 1/2	5	0 10 0
12000 Phoenix United, t, c, Link t.	8 0	0	3	2 1/2	3	17 0
18000 Pr. Patrick, *t, (als. 12000 pt. 10 p.c.)	1 0	0	—	—	—	0 2 0
12000 Red Rock, *t, Cardigan	2 0	0	2	1	2	0 1 0
12000 Roman Gravels, t, Salop*	7 10	0	9 1/2	9 1/2	9 1/2	8 16 0
10000 Rhydalan, t, Wales	10 0	0	—	—	—	0 5 0
512 South Cardigan, c, Ste. Cleer†	1 5	0	27 1/2	27 1/2	27 1/2	749 0
612 South Conduffor, t, Camborne†	6 5	0	10	9	9 1/2	8 18 0
9000 South Darren, t, Cardigan	1 16	0	1 1/4	1 1/4	1 1/4	0 4 0
4500 South Wheal Frances, t, Illogan†	7 12	0	14 1/2	13 1/2	14 1/2	40 15 6
6000 Tincroft, c, t, Pool, Illogan†	11 1C	0	14 1/2	13 1/2	13 1/2	51 3 6
15000 Van, t, Llanidloes*	4 5	0	7	6 1/2	7	25 8 0
12000 West Holystone, t, Flintshire	1 0	0	1 1/2	1 1/2	1 1/2	0 1 0
512 West Tolius, c, Redruth	95 10	0	20	18	18	33 0
12000 West Wheal Seton, c, Camborne†	28 0	0	40	40	42 1/2	223 0
6000 West Bassett, c, Illogan†	7 0	0	14	13	14	27 17 0
12000 Wheal Creber, c, Tavistock	2 4	0	2 1/2	2 1/2	2 1/2	0 13 9
15024 Wheal Eliza Consols, t, St. Austell	18 0	0	—	—	—	42 10 0
15000 Wheal George, t, St. Agnes	1 0	0	3 1/2	3 1/2	3 1/2	0 8 0
6000 Wheal Grenville, t, Camborne	15 0	0	11 1/2	10 1/2	11 1/2	12 18 6
4295 Wheal Kitty, t, St. Agnes	5 4	0	1 1/2	1 1/2	1 1/2	0 1 6
3000 Wheal Peever, t, Redruth	7 11	0	12 1/2	11 1/2	12 1/2	8 13 6

FOREIGN DIVIDEND MINES.

Shares.	Paid.	2	1 1/4	2	2 5	8 0	1	8 0	Mar. 1882
35500 Alamillos, t, Spain†	2 0	0	—	—	—	—	—	—	
130000 Almada and Trito Consol., *t	1 0	0	34	34	34	0 8 0	3 0	0	May 1876
200000 Australia, c, South Austral.†	7 7	0	1 1/2	1 1/2	1 1/2	1 5 6	0 2	0	Aug. 1881
155000 Birdseye Creek, c, California*	4 0	0	—	—	—	0 18 0	0 2	0	June 1881
200000 Cape Copper Mining, *t South Africa	7 0	0	49	46	48	45 7	6	1	Mar. 1882
35500 Cesena Sulph. Co., Romagna, Italy*	10 0	0	—	—	—	1 1 0	0	1	Aug. 1879
50000 Copiapo, c, Chile (1/4 shares)	3 8	0	—	—	—	1 17 9	0	2	Mar. 1882
70000 English & Australian, *t S. Aust.	2 10	0	1 1/2	1 1/2	1 1/2	3 0 9	0 1	0	Mar. 1882
25000 Fornito, t, Spain†	2 0	0	—	—	—	0 8 0	0 2	0	Jan. 1881
20000 Frontino, t, Bolivia, New Gran.*†	2 0	0	2 1/2	2 1/2	2 1/2	0 10 0	0 0	0	May 1882
15000 La Plata, s-t, Leadville†	2 0	0	—	—	—	0 10 0	0 0	0	Mar. 1882
15000 Linares, t, Spain*	3 0	0	—	—	—	0 10 0	0 0	0	July 1881
86000 New Quebec, c, Venezuela†	5 0	0	—	—	—	0 5 6	0 3	0	July 1881
10000 Ditto, Debentures	100 0	0	—	—	—	100 5 100	6 per cent.	—	
3000 Oregon, g, Oregon U.S. (pref. sh.)	4 0	0	—	—	—	0 2 6	0 2	0	Dec. 1880
5000 Panuelillo, c, Chil. (als. 6000 £1 pd.)	4 0	0	—	—	—	0 16 0	0 3 0	0	Oct. 1881
10000 Pontigaud, s-t, France†	20 0	0	13	11	12	28 17 6	0 7	3	Dec. 1880
20000 Port Phillip, g, Clunes† (122 shares)	1 0	0	—	—	—	0 14 2	0 10 0	0	Feb. 1881
50000 Kara Fortune, s, Argent. Republic	1 0	0	—	—	—	0 2 0	0 1	0	Jan. 1882
54000 Richmond Consol., s, Nevada†	5 0	0	10 1/2	10 1/2	10 1/2	13 11 6	0 10 0	0	Feb. 1882
24822 Rio Tinto, *c, Mortgage Bds., Huelva, 100	0	0	103	101	103	5 per cent.	—	—	July 1882
22500 Ditto, shares	10 0	0	26 1/2	26 1/2	26 1/2	27 18 0	0 8 0	0	Nov. 1880
40000 Santa Barbara, g, Brazil	0 10	0	—	—	—	0 11 9	0 1	0	June 1880
120000 Scottish-Australian Mining Co.†	1 0	0	—	—	—	100 95 100	10 p. cent.	—	
80000 Ditto, New	0 10	0	—	—	—	10 0	10 0	0	Oct. 1881
50000 Sentein, s-t, Arriego, France	1 0	0	—	—	—	0 2 0	0 2	0	Jan. 1880
22500 Sierra Buttes, g, California*	2 0	0	—	—	—	0 16 0	0 3 0	0	Oct. 1881
100000 Kara Fortune, s, Argent. Republic	1 0	0	—	—	—	0 2 0	0 1	0	Jan. 1882
54000 Richmond Consol., s, Nevada†	1 0	0	—	—	—	0 4 0	0 4 0	0	Aug. 1881
233000 St. John del Rey† (25 Stock and multiples dealt in)	180 190	0	—	—	—	5 p. cent.	—	—	Dec. 1881
92566 Tharsis, *c, sul, Spain (31000 sh. 7 1/2 p.)	10 0	0	41 1/2	41 1/2	42	8 10 6	2 10 0	0	June 1881
20000 Tolima, g, Colombia	5 0	0	4	3 1/2	4	2 1 6	0 5 0	0	Dec. 1881
25000 Victoria (London), g, Australia	1 0	0	—	—	—	0 13 10	0 0 0	0	Feb. 1881
100000 Victorina (Nevada, U.S.) Deb. Bds.	1 0	0	—	—	—	0 6 0	0 6 0	0	Sept. 1881
15000 Western Andes, g, Colombia	5 0	0	—	—	—	3 6 0	0 6 0	0	Aug. 1880
2100 W. Prussian (5500 pref. sh. £10 pd.)	10 0	0	10	9 10	4 2 0	0 8 0	0 8 0	0	Apr. 1881

* Have made calls since last dividend was paid.

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